

Department of the Army  
Pamphlet 350–38

Training

# **Standards in Training Commission**

Headquarters  
Department of the Army  
Washington, DC  
24 July 2008

**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

DA PAM 350-38

Standards in Training Commission

This major revision, dated 24 July 2008--

- o Manages the integration, development, production and distribution of training materials in support of individual and collective training for all elements of the Active and Reserve Component Forces (throughout).
- o Provides guidance, advice, and assistance to U.S. Army Training and Doctrine Command schools and other training development agencies (throughout).
- o Provides commanders and other unit trainers with a common set of weapon and weapon system qualification standards (throughout).
- o Provides commanders and other unit trainers with suggested weapon strategies that will lead to the attainment and sustainment of standards and provide a model of resource allocation (throughout).
- o Provides commanders with measurable standards of evaluating a portion of their overall training readiness (throughout).

## Training


### Standards in Training Commission

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By Order of the Secretary of the Army:

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*General, United States Army*  
*Chief of Staff*

Official:

  
JOYCE E. MORROW  
*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This publication is a major revision.

**Summary.** This pamphlet contains procedures for planning, resourcing, and executing training. It includes weapons qualification standards, suggested training programs, and ammunition requirements for the attainment and sustainment of

weapons proficiency. The programs incorporate training devices and simulators.

**Applicability.** This pamphlet applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. During mobilization, the proponent may modify chapters and policies contained in this pamphlet.

**Proponent and exception authority.** The proponent of this pamphlet is the Deputy Chief of Staff, G–3/5/7. The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests

will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Army Training Support Center (Standards in Training Commission), Fort Eustis, VA 23604–5166.

**Distribution.** This publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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\*This publication supersedes DA Pam 350–38, dated 16 August 2004.

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## Glossary

## **Chapter 1**

### **Introduction**

#### **1-1. Purpose**

The objective of all Army activity in peacetime is a trained and ready force. DA PAM 350-38, Standards in Training Commission (STRAC) provides Commanders with the training strategies for individual, crew, and collective weapons training, and identifies the resources required to execute that training. Standards in Training Commission strategies are the basis for determining training ammunition requirements and for providing units and Army Commands (ACOM) and Army Service Component Commands the information necessary to forecast training ammunition. Standards in Training Commission strategies form the basis of the Headquarters Department of the Army (HQDA) training ammunition program used in programming and resourcing. The STRAC training strategies drive investment and resourcing decisions in areas such as range modernization, range instrumentation, and Training Aids, Devices, Simulators and Simulations (TADSS).

#### **1-2. References**

Required and related publications and prescribed and referenced forms are listed in appendix A.

#### **1-3. Explanation of abbreviations and terms**

Abbreviations and special terms used in this pamphlet are explained in the glossary.

#### **1-4. Scope**

The STRAC training strategies apply to the Active Component (AC), the Army National Guard (ARNG), and the U.S. Army Reserve (USAR).

#### **1-5. Standards in Training Commission**

In March 1982, the Vice Chief of Staff for the Army (VCSA) established the STRAC, appointing the Army Deputy Chief of Staff for Operations and Plans, G-3, as chairman and U.S. Army Training and Doctrine Command (TRADOC), Army Training Support Center (ATSC) as the Army Executive Agent. The STRAC mission is to determine the quantities and types of munitions required for Soldiers, crews and units to attain and sustain weapon proficiency relative to readiness levels, making maximum use of TADSS and sub-caliber firing devices.

#### **1-6. Responsibilities**

Responsibilities are outlined in AR 5-13.

#### **1-7. Training Ammunition Management Process**

*a. Standards in Training Commission Program.* Ammunition management starts with the STRAC strategies. The STRAC chairman directs the program and reports directly to the VCSA. The chairman is supported by the Training and Leader Development General Officer Steering Committee (TLGOSC), with membership from the Army staff, ACOMs and Army Service Component Commands, TRADOC and the Commandants of the proponent schools. Weapons committees chaired by the commandants of the Air Defense, Armor, Aviation, and Special Warfare schools, and the Maneuver Support Center (MANSCEN), to include the Ordnance, Field Artillery and Infantry schools, with full ACOMs and Army Service Component Commands representation, develop weapons training standards and strategies. The Army Munitions Council of Colonels chaired by DAMO-TRA and TRADOC Program Integration Office-Live (TPIO-LIVE) reviews and integrates weapons standards and strategies. Approved Strategies by the Army Munitions Council of Colonels will be integrated into DA PAM 350-38 in line with the Congressional Program Objective Memorandum (POM) cycle.

*b. Training Ammunition Requirements.* Each year, unit commanders use the approved training standards and strategies in DA PAM 350-38 to determine their training ammunition requirements for the following year's training events. Training Ammunition Management Information System (TAMIS) is used by units to review, validate, and submit their ammunition requirements to G-3. Following review and consolidation by each ACOMs and Army Service Component Commands and validation by ATSC, STRAC requirements become the basis for training ammunition authorized by the G-3.

*c. Total Army Ammunition Authorization/Allocation Committee (T4AC).* Each year during the T4AC, ACOMs and Army Service Component Commands receive training ammunition authorizations in accordance with their validated STRAC requirements. Authorizations may be adjusted to account for ammunition in short supply or to force expenditure of older munitions. The TAMIS is the Army's official system for managing training ammunition authorizations.

*d. Training Ammunition Management Information System* is used to manage training ammunition across the Army. It provides visibility of all levels of ammunition authorizations, expenditures and forecasts. The Army G-3 provides authorizations to the ACOMs and Army Service Component Commands through TAMIS. ACOMs and Army Service

Component Command sub-authorize to their subordinate units. Units plan their training events using TAMIS authorizations and submit their monthly forecasts in TAMIS based upon their STRAC requirements. After verifying authorizations in TAMIS, ammunition storage points (ASP) issue training ammunition to units immediately prior to the training event. Once issued, ammunition items are recorded as expenditures in TAMIS.

#### **1–8. Structure of DA Pam 350–38**

*a.* Chapters in this pamphlet are structured by unit type - Armor, Infantry, Artillery, and so forth, — instead of by weapon type, as in previous editions of this manual. This new approach simplifies training management at the unit level and allows commanders to “see” their unit’s entire weapons training strategy for all weapons in one place. Additionally, STRAC strategies in each chapter now reflect training doctrine from the Army’s field manuals (FM), resulting in the addition and resourcing of training events that previously were not included or resourced for execution.

*b.* Each chapter consists of a written strategy incorporating use of both training devices and weapons; charts outlining required individual and collective training, and weapons training standards. Each chapter also contains tables showing the training tasks and resources required for each weapon system.

*c.* U.S. Army National Guard and U.S. Army Reserve Command units will use the same chapters, strategies, and tables as AC units. Upon receipt of an official DA alert notice, Reserve Component (RC) units will use AC requirements to identify training ammunition needed to bring them to AC standards on the weapons required for the mission. Mission requirements may not include every weapon on a unit’s Modification table of Organization and Equipment (MTOE), and they may require training on weapons not on the MTOE. Upon receipt of an official DA mobilization order, RC units forecast training ammunition required to bring them to AC standards on the weapons required for the mission. The HQDA G–3 DAMO–TRA will provide additional authorizations, if needed, once the ACOMs and Army Service Component Commands have cross-leveled available authorizations required to perform the mobilization mission.

*d.* This pamphlet also contains training ammunition requirements for Contingency Operations (CONOPS) training, Deployment Exercises (DEPLOYEX), Continental United States/Outside the Continental United States (CONUS / OCONUS)-directed training exercises, and CTC rotations.

#### **1–9. Resourcing**

*a.* HQDA uses the events found in the training strategies (Combined Arms Training Strategy (CATS) and STRAC) as the basis for programming and budgeting training resources. The Army’s goal is to fully resource each unit to execute the training strategy found in this pamphlet. Fiscal constraints or ammunition availability due to suspensions, procurement, or distribution problems may not always allow fulfillment of this goal. Commanders must address this when determining their unit’s T-rating for readiness reporting.

*b.* Programming and budgeting of munitions required for STRAC weapons training occurs in accordance with POM cycles. As a rule, four years are required from the time a unit identifies its training ammunition requirements until the ammunition is available for execution. In the first year, the unit identifies its requirements, which ATSC validates and DAMO–TRA incorporates into that year’s POM process. In the second year, Congress approves the funding to support Army requirements. In the third year, the Army purchases the munitions required to execute STRAC weapons training strategies. In the fourth year, the munitions are available for training.

#### **1–10. Training aids, devices, simulators, and simulations**

Training devices aid in sustainment training are called training aids, devices, simulators, and simulations (TADSS) enhance and sustain skills, and in some cases, may be the sole medium for training critical tasks. TADSS are an integral part of the training strategies, and full-caliber requirements are based on their use as presented in the strategies. A complete list and description of available TADSS used by each type of unit is included in that unit’s chapter of this pamphlet and appendix B.

#### **1–11. U.S. Army Reserve Command Standards and Strategies**

*a.* Standards and strategies for USAR Training Divisions, Separate USAR Training Brigades, and ARNG Training Cadre appear in this pamphlet as “USAR Training Battalion”.

*b.* U.S. Army Reserve training programs support both initial-entry and prior-service personnel. USAR training programs in this pamphlet also support and accommodate the USAR-phased qualification / sustainment program by basing training ammunition on the number of Soldiers in each phase instead of basing it on the number of weapons in the unit’s MTOE / table of distribution and Allowances (TDA).

*c.* For individual weapons qualification, all personnel involved in marksmanship instruction (except instructors and drill sergeants) will follow USAR training strategies. Soldiers assigned as Track Commanders / Instructors in infantry or scout Advanced Individual Training (AIT) or One Station Unit Training (OSUT) units are considered to be instructors when determining resources and the attainment of standards.

#### **1–12. Training strategies**

*a.* The weapons training strategies in this manual prescribe the events and standards for achieving and sustaining

individual, crew, and unit readiness. In conjunction with the CATS, the STRAC strategies form the basis of unit collective training. Commanders will use the events found in the STRAC and CATS strategies to develop their unit training plan and calendar, taking into account the frequency, duration, conditions and standards in the strategies. The training plan is briefed at the QTB, to include events executed as well as events scheduled but not executed. When planned training is not conducted, the commander is assuming risk. Commanders will verify their T-Rating on the Unit Status Report using the Training Event Execution Review (TEER) (AR 220-1, chap 7).

*b.* The STRAC format has been changed from a weapons-based to a unit-based concept. This concept allows targeting of resources down to a specific unit type with allowances for different Mission Essential Task Lists (METLs).

*c.* Active Component Tactical Director Assistant units with personnel assigned individual weapons will qualify semi-annually. RC personnel assigned individual weapons will qualify annually. Consult the appropriate section of this chapter to determine authorized resources for weapons training. Personnel in any TDA unit who are not assigned an individual weapon are exempt from weapons qualification in accordance with AR 350-41, paragraph 10-2f (4).

*d.* Weapons qualification requirements consist of iron sight qualification and add-on device qualification, for example, Close-Combat Optic (CCO) for the M16/M4. The item is resourced only if the unit MTOE includes CCOs, and the unit is resourced only for the number of CCOs on the MTOE.

*e.* Training requirements outlined in this chapter are derived from current Army doctrinal FMs and training pamphlets and circulars. Due to a variety of constraints, the FM-recommended training strategy might not be fully supported with ammunition resources. Standards in Training Commission may support only the critical exercises in the applicable doctrinal publications.

*f.* AR 350-41 authorizes ACOMs and Army Service Component Commands commanders to approve the use of alternate qualification methods and modified or sub-caliber qualification courses outlined in DA strategies and field manuals when the unit conducting training does not have reasonable access to adequate range facilities. The training proponent for the affected weapon must approve all other modifications.

*g.* Commercial Pack Ammunition. CONUS units will use the commercial pack Department of Defense Identification Codes (DODICs) listed for individual weapons training events, Mil-Pack DODICs will be used for a collective training events. OCONUS units will use the Mil-Pack DODICs. All OCONUS units will request the following DODICs for individual training events: M16A2 (A059 in lieu of AA33); M9 (A363 in lieu of AA49).

*h.* Non-Infantry Urban Operations (UO) Training Strategy. The Non-Infantry UO Training Strategy is the only approved UO training strategy for non-infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on a commanders' METL. The UO training strategy outlines training events a unit commander can choose to conduct. A complete description of the UO Training Strategy is included appendix C.

### **1-13. Chapter overviews**

The following are overviews of the chapters contained in this manual.

*a. Chapter 2.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual, collective crew served weapons and platforms (wheeled and tracked) training for all personnel assigned to Tank Battalions, Cavalry Squadrons, and Reconnaissance Troops.

*b. Chapter 3.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual, collective crew served weapons, and gunnery training programs for units equipped with 105-mm howitzers, 155-mm howitzers, Multiple Launch Rocket Systems (MLRS), Bradley Fire Support Vehicles (BFSV), and Stryker Brigade Combat Team (SBCT).

*c. Chapter 4.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons assigned to an Air Defense Artillery (ADA) unit. This chapter also provides weapons standards, training strategies and resource requirements for units equipped with Man Portable Air Defense System (MANPADS) Stinger, Avenger, and Patriot Air Defense Artillery weapon systems.

*d. Chapter 5.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in AC Light Infantry, SBCT, and Mechanized Infantry units; USAR Training Battalions and ARNG Infantry units. TDA requirements also are addressed.

*e. Chapter 6.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in engineer units and include training with mines and demolitions.

*f. Chapter 7.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in aviation units. It provides training strategies, standards, and resource requirements for units equipped with AH-64A/D, OH-58D, UH-60, CH-47 and UH-1 aircraft.

*g. Chapter 8.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in military police units. This includes military police, Special Reaction Team (SRT), and Criminal Investigation Division (CID) units.

*h. Chapter 9.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in Combat Support/Combat Service Support (cs/CSS) units, including chemical, Explosive Ordnance Disposal (EOD), and ordnance units.

*i. Chapter 10.* - This chapter provides the rotational training ammunition requirements for DEPLOYEXs and for the Combat Training Centers: National Training Center (NTC), Joint Readiness Training Center (JRTC), and Combat Maneuver Training Center (CMTC). The tables in this chapter provide training ammunition and pyrotechnics requirements by DODIC, by rotation.

*j. Chapter 11.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in the 75th Ranger Regiment.

*k. Chapter 12.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons assigned to Special Forces (SF) units. These tables apply to all Special Operations Team Alpha (SOT-A) and Chemical Recon Detachment (CRD) Teams assigned to SF Groups and theater-designated SF units with a close-quarters combat mission.

*l. Chapter 13.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in the 160th Special Operations Aviation Regiment (SOAR) Airborne).

*m. Chapter 14.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons for AC and RC Civil Affairs and Psychological Operations units.

*n. Chapter 15.* - This chapter provides training strategies, weapons qualification standards and resource requirements for individual and crew served weapons in the Special Operations Support Command (SOSCOM).

*o. Chapter 16.* - This chapter provides training strategies, weapons qualification standards and resource requirements for all pre- and post-CONOPS, RC mobilization, and non-lethal munitions training. Contingency operations are considered any real-world operation conducted in a peacekeeping or hostile-fire zone. Due to the unpredictable nature of the training events discussed in this chapter, it is impossible for the Army to plan and program the total resources required to support them. Therefore, the actual quantities of munitions needed to ensure a unit has the required numbers of weapons system-qualified personnel will be provided through internal management of annual training ammunition authorizations.

*p. Chapter 17.* - This chapter provides training strategies, weapons qualification standards and resource requirements for Base Operations (BASOPS).

## **Chapter 2**

### **Armor**

#### **2-1. Description**

*a.* This chapter provides weapon standards, training strategies and resource requirements for tank battalions (BN), cavalry squadrons, brigade reconnaissance troops (BRT), scout platoons, and reconnaissance surveillance and target acquisition (RSTA) squadrons. This chapter also provides standards and training strategies for individual weapons, crew-served weapons and platform training (wheel and track). Each weapon's training program includes a standard and strategy that outlines the training sequence while also including suggested frequencies of live fires and use of training devices. It also covers strategies from individual to collective.

*b.* The objective of the weapons training programs is to provide the unit commander models for attaining and sustaining weapon proficiency throughout the training year. Proficiency is achieved through the use of dry-fire exercises; training aids, devices, simulators and simulations (TADSS), and live-fire exercises (LFX).

#### **2-2. Individual Weapons Training Requirements and Qualification**

This section contains TADSS Information, weapon qualification, and resource requirements for Active Component (AC) brigade combat teams (BCT), United States Army Reserve (USAR) and National Guard (NG) tank battalions, cavalry squadrons, BRTs, scout platoons and RSTA units. Individual weapon qualification requirements contain two strategies; one for units equipped with Engagement Skills Trainer (EST) 2000 and one for units without EST 2000.

#### **2-3. Training Aids, Devices, Simulators and Simulations**

A realistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew-served weapons TADSS information is contained in Appendix B.

#### **2-4. Non-Infantry Urban Operations Training Strategy**

The Non-Infantry Urban Operations (UO) Training Strategy is the only approved UO training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on a commanders' Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO training strategy information is contained in appendix C.

## 2-5. Individual Weapon Qualification Requirements

a. *M9 Automatic Pistol (See table 2-1).*

(1) Ninety percent (90 percent) of Soldiers assigned the M9 will meet the qualification standards of the combat pistol qualification course (CPQC) in FM 3-23.35 every six months for the AC and eighty percent (80 percent) for the Reserve Component (RC) every 12 months.

(2) Outside the continental United States (OCONUS) units will request A363 in lieu of AA49.

**Table 2-1**  
**M9 Qualification (FM 3-23.35)**

EVENT	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table VI NBC Fire <sup>1</sup>	Ball/EST	AA49	7/0	2	1
CPQC table VII Night Fire <sup>1</sup>	Ball/EST	AA49	5/0	2	1
<b>Total Rounds for Qualification</b>					
Non EST Equipped Units	Ball/EST	AA49		184	92
<i>EST Equipped Units<sup>2</sup></i>	Ball/EST	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Units assigned to installations equipped with the EST 2000 will conduct Nuclear, Biological and Chemical (NBC) and Night Qualification on the EST 2000.

b. *M16 Rifle/M4 Carbine (See table 2-2).*

(1) Primary and secondary day sight: The primary sight is the Close Combat Optic (CCO)/ Advanced Combat Optical Gun-sight (ACOG) or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(2) Ninety percent of AC Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 every six months with the primary day sight and night sight / aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of RC Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 every 12 months for the events listed below. The USAR/NG will alternate primary and secondary sight qualification every year, if equipped with CCO or ACOG. OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required request AA45.

(4) Day Requirements without EST 2000: Iron Sight/Back-up Iron Sight (BIS): All Soldiers will qualify on the day and NBC record course.

(5) Day Requirements with EST 2000: Iron Sight/ BIS: All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each night vision device (NVD) assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 2–2**  
**M16/M4 Qualification (FM 3–22.9)**

		DODIC <sup>3</sup>		Freq	
Event	Type	AA33	A063	AC	RC
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	EST/LMTS <sup>4</sup>			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
CCO (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
BIS Zero	Ball	18		1	1
BIS Practice Record	Ball	40		1	1
BIS Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight <sup>2</sup>					
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36		2	1
Night Field Fire I	Ball	36		2	1
Practice Record	Ball	40		2	1
Record <sup>1</sup>	Ball	40		2	1
Subtotal				304	152
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Ball	18		2	1
IR Night Field Fire I	Ball	36		2	1
IR Practice Record	Ball	40		2	1
IR Record <sup>1</sup>	Ball	40		2	1
Subtotal				268	134
Total Rounds					
	AC w/o EST/w/ EST			RC w/o EST/w/ EST	
	AA33	A063		AA33	A063
Iron Sight Only Qual	356/196	40/0		178/98	20/0
CCO & BIS Qual	454/294	40/0		276/196	20/0
Thermal Weapon Sight	304/304	0/0		152/152	0/0



**Table 2-2**  
**M16/M4 Qualification (FM 3-22.9)—Continued**

Intermittent Qualification (Pilot & LFX) - Continued

		DODIC <sup>3</sup>		Freq	
Event	Type	AA33	A063	AC	RC
Infrared	268/268	0/0		134/134	0/0
Collective Training					
			AC	Freq	
	DODIC	Rounds		NG	USAR
Sqd/Plt/Co STX/FTX	A080	120	2	1	0
EXEVAL <sup>1</sup>	A080	120	1	1	0.5
Sqd/Plt LFX <sup>1</sup>	A059/A063	130/20	1	0	0

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free rounds are required, request DODIC AA45.

*c. M2 Heavy Barrel (HB) .50 cal MG (See table 2-3).*

(1) Ninety percent of Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.65 every six months for the AC and eighty percent for the USAR/NG every 12 months.

(2) Day requirements: Qualify on Day Qualification table II.

(3) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ-2A and AN/PAS-13 Heavy Thermal Weapon Sight (HTWS).

**Table 2-3**  
**M2 .50 cal Qualification (FM 3-22.65)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
Subtotal Rounds				560	280
<b>Night Qualification</b>					
AN/PEQ-2A					
Night Zero <sup>1</sup>	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
Subtotal Rounds				556	278
<b>AN/PAS-13 HTWS</b>					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
Subtotal Rounds				576	288
<b>Total Rounds for Qualification</b>					
Day Qualification					
table I & II	Mix	A557		560	280
<b>Night Qualification</b>					

**Table 2-3**  
**M2 .50 cal Qualification (FM 3-22.65)—Continued**

AN/PEQ-2A Qualification	Mix	A557		556	278
AN/PAS-13 HTWS Qualification	Mix	A557		576	288
<b>Collective Training</b>					
Sqd/Plt/Co STX/FTX	Blank	A598	300	2	1
EXEVAL <sup>1</sup>	Blank	A598	300	1	0
Sqd/Plt LFX <sup>1</sup>	Mix	A557	100	1	0

Notes:

<sup>1</sup> Indicates Standard.

d. *M203 Grenade Launcher (GL)* (See table 2-3). Ninety percent of Soldiers assigned the M203 GL will meet the day qualification standards in FM 3-22.31 every six months for the AC and eighty percent for the USAR/NG will qualify every 12 months.

**Table 2-4**  
**M203 Qualification (FM 3-22.31)**

EVENT	TYPE	DODIC	Rounds	Freq	
				AC	RC
Day Zero <sup>1</sup>	TP	B519	6	2	1
Day Qualification <sup>1</sup>	TP	B519	15	2	1
Total Rounds for Qualification	TP	B519		42	21
<b>Collective Training</b>					
Sqd/Plt/Co LFX	TP	B519	4	1	0

Notes:

<sup>1</sup> Indicates Standard.

e. *M240B MG/M249 Light Machine Gun (LMG)* (See table 2-5).

(1) (1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M240 will zero and meet the day qualification standards in FM 3-22.68 and if equipped with night vision devices, conduct night qualification in accordance with (in accordance with) with TC 23-AIMSS (Advanced Infantry Marksmanship Strategies and Standards) every six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240 will zero and meet the day qualification standards in FM 3-22.68 and night qualification standards in TC 23-AIMSS every 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000:

(a) Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(b) Machine Gun Optic (MGO): Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000:

(a) 10-meter fire is conducted on the EST 2000.

(b) Transition fire is conducted in accordance with FM 3-22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 2–5**  
**M240B MG/M249 LMG Qualification (FM 3–22.68)<sup>2</sup>**

Event	Type	DODIC		Freq	
		A143/A062	A131/A064	AC	RC
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero for Bipod and Tripod <sup>1</sup>	Ball or EST	24		2	1
10m Practice	Ball or EST	161		2	1
10m Record <sup>1</sup>	Ball or EST	91		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		28	2	1
Transition Practice	Mix		154	2	1
Transition Record <sup>1</sup>	Mix		154	2	1
Subtotal (A143/A131)					
Units not equipped with EST				552/672	276/336
Units equipped with EST				0/672	0/336
Machine Gun Optic (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero for Bipod and Tripod (MGO) <sup>1</sup>	Ball or EST	24		2	N/A
10m Practice (MGO)	Ball or EST	161		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	91		2	N/A
Iron Sight 10m Zero for Bipod and Tripod	Ball or EST	24		1	N/A
Iron Sight 10m Practice	Ball or EST	161		1	N/A
Iron Sight 10m Record	Ball or EST	91		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		28	2	N/A
Transition Practice (MGO)	Mix		154	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		154	2	N/A
Iron Sight Transition Zero	Mix		28	1	N/A
Iron Sight Transition Practice	Mix		154	1	N/A
Iron Sight Transition Record	Mix		154	1	N/A
Subtotal (A143/A131)					
Units not equipped with EST				828/1008	N/A
Units equipped with EST				0/1008	N/A
Thermal Weapon Sight <sup>2</sup>					
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix		36	2	1
TWS Night Field Fire III	Mix		154	2	1
TWS Limited Visibility Practice	Mix		154	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix		154	2	1
Subtotal				996	498
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Mix		18	2	1
IR Night Field Fire III	Mix		154	2	1

**Table 2–5**  
**M240B MG/M249 LMG Qualification (FM 3–22.68)<sup>2</sup>—Continued**

IR Practice	Mix		154	2	1
IR Qualification <sup>1</sup>	Mix		154	2	1
<b>Subtotal</b>				<b>960</b>	<b>480</b>
<b>Total Rounds</b>					
	<b>AC w/o EST/w/ EST</b>			<b>RC w/o EST/w/ EST</b>	
	A143/A062	A131/A064		A143/A062	A131/A064
Iron Sight Only	552/0	672/672		276/0	336/336
MGO & Iron Sight	828/0	1008/1008		N/A	N/A
Thermal Weapon Sight	0/0	996/996		0/0	498/498
Infrared	0/0	960/960		0/0	480/480
<b>Collective Training</b>					
	<b>DODIC</b>	<b>Rounds</b>		<b>AC</b>	<b>RC</b>
Plt/Co LFX <sup>1</sup>	A131/A064	300		1	1
Sqd/Plt/Co FTX/STX <sup>1</sup>	A111/A075	200		2	1
EXEVAL <sup>1</sup>	A111/A075	200		1	0.5

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Armor (AR) units assigned the M240 dismount kits may fire the iron sight practice table for familiarization.

*f. Hand grenades (HG) (See table 2–6).*

(1) Qualification requirements for Soldiers assigned to a Mortar (mort) or Scout platoon differ from all other Soldiers. Consult the appropriate requirements below.

(2) Mortar or Scout Requirements: Soldiers will qualify on the hand grenade qualification course (HGQC) in accordance with FM 3–23.30 every six months.

(3) All Other Soldiers Requirements: Soldiers will qualify on the HGQC in accordance with FM 3–23.30 every 12 months.

**Table 2–6**  
**Hand Grenade (FM 3–23.30)**

				Freq		
EVENT	Type	DODIC	Rounds	Scouts/Mortars	AC	RC
Qualification						
Mock Bay	M228	G878	2	1	0.5 <sup>2</sup>	0.5 <sup>2</sup>
HGQC <sup>1</sup>	M228	G878	6	2	1	1
Total For Qualification	M228	G878		14	8	8
Live Grenade Throw <sup>2</sup>	M67	G881	1	1	0.5 <sup>2</sup>	0.5 <sup>2</sup>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

*g. AT–4 (See table 2–7).*

(1) Qualification is conducted using the M287 sub caliber (cal) tracer trainer. Consult the appropriate requirements below. Two Soldiers per section will qualify in accordance with the Day and Night requirements listed below.

(a) Day Requirements: Qualify on Day Qualification table III in accordance with FM 3–23.25 every six months.

(b) Night Requirements: Qualify on Night Qualification table IV in accordance with FM 3–23.25 every six months with each of the following devices if assigned: Infrared (IR) Aiming Light and AN/PAS–13 thermal weapon sight (TWS).

(2) All Other Soldiers Requirements: Ten percent of the assigned Soldiers (E-5s and below) not assigned to a Mortar or Scout platoon will qualify on Day Qualification table III in accordance with FM 3-23.35 every six months.

**Table 2-7**  
**AT-4 Qualification (FM 3-23.25 & ST 23-AIMSS)**

Event	DODIC	Rounds	Sct/Mort	Freq	
				Sct/Mort BCT BDE	All Others
table I Instructional Day	A358	12	2	1	1
table II Instructional Night	A358	12	2	1	1
table III Day Qualification <sup>1</sup>	A358	8	2	1	1
table IV Night Qualification <sup>1</sup>	A358	8	2	1	0
table V Advanced Fire	A358	6	2	0	0
<b>Total Rounds for Qualification</b>					
Qualification/Instructional Fire	A358		92	40	32
<b>Collective Training</b>					
Sqd/Plt/Co FTX/STX	L367	6	5	0.5	0
EXEVAL (ARTEP) <sup>1</sup>	L367	6	1	0.5	0
<b>Total Collective Training</b>					
ATWESS	L367		36	6	0

Notes:

<sup>1</sup> Indicates Standard.

*h. M1200 shotgun (See table 2-8).*

(1) Ninety percent (90 percent) of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those tasks identified in STP 19-95C1-SM.

(2) Eighty percent (80 percent) of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 2-8**  
**M1200 Qualification (STP 19-95C1-SM)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A011	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2	1
<b>Total Rounds for Qualification</b>					
Total	Buckshot	A011		26	13

Notes:

<sup>1</sup> Indicates Standard.

*i. Claymore Mine (See table 2-9).*

(1) Qualification requirements for Soldiers assigned to a Mortar or Scout platoon differ from all other Soldiers. Consult the appropriate requirements below.

(2) Mortars/Scouts Requirements: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every three months.

(3) All Other Soldiers Requirements: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every six months.

**Table 2–9**  
**M18A1/A2 Claymore Mine (FM 23–23)**

EVENT	Type	Rounds	Freq		
			Scouts/Mor-tars	AC All Others	RC
Employment Instruction/Qualification <sup>1</sup>	Inert	N/A <sup>2</sup>	8	2	2

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> No rounds required for qualification.

*j. Mortars.* Squad leaders, gunners and assistant gunners (AG) will have passed the Mortar Gunner's Exam every six months with a minimum score of 70 percent in each event. Ninety percent of all section leaders, squad leaders, and Fire Direction Center (FDC) personnel will have passed the FDC exam (FM 3–22.91) every six months (See table 2–10–2–15).

**Table 2–10**  
**AC 60mm Mortar (FM 3–22.90) (FM 3–22.91)**

Event	Type				AC
	HE	WP	Illum	FRTR	
Mortar Crew/Section Training			0	20	4
Section EXEVAL W/SRTR	13	4	8	30	1
Section EXEVAL W/Live	13	4	8	30	1
ARTEP LFX <sup>1</sup>	12	4	8	30	2
CALFEX	24	2	3		1

**Rounds per Tube**

Type	DODIC				Rounds
HEPD	BA17				50
HE w/MOF	BA16				24
WP	BA14				18
Illum Visible	B647				18
Illum IR	BA04				17
FRTR	BA15				200

Notes:

<sup>1</sup> Indicates Standard.

**Table 2–11**  
**NG 60mm Mortar (FM 3–22.90) (FM 3–22.91)**

Event	Type				NG
	HE	WP	Illum	FRTR	
Mortar Crew/Section Training	0	0	0	30	1
Section EXEVAL W/FRTR	0	4	8	34	1
ARTEP LFX <sup>1</sup>	18	4	8	16	1

**Rounds per Tube**

Type	DODIC				Rounds
HEPD	BA17				18
WP	BA14				8
Illum Visible	B647				8

**Table 2–11**  
**NG 60mm Mortar (FM 3–22.90) (FM 3–22.91)—Continued**

Illum IR	BA04				8
FRTR	BA15				80

Notes:

<sup>1</sup> Indicates Standard.

**Table 2–12**  
**AC 81mm Mortar**

Event	Type				AC
	HE	WP	Illum	FRTR	
Mortar Crew/SEC/Plt Training	0	0	0	20	4
Mortar Crew/SEC/Plt Training	13	4	8	30	1
Mortar Crew/SEC/Plt Training	13	4	8	30	1
ARTEP LFX <sup>1</sup>	12	4	8	30	2
CALFEX	24	2	3	0	1

**Rounds per Tube**

Type	DODIC				Rounds
HEPD	C869				50
HE w/MOF	C868				24
WP	C870				18
Illum Visible	C871				18
Illum IR	C484				17
FRTR	C875				200

Notes:

<sup>1</sup> Indicates Standard.

**Table 2–13**  
**NG 81mm Mortar**

Event	Type				NG
	HE	WP	Illum	FRTR	
Mortar Crew/Section Training	0		0	30	1
Section EXEVAL Tng W/FRTR	0	7	5	34	1
ARTEP LFX <sup>1</sup>	18	7	5	16	1

**Rounds per Tube**

Type	DODIC				Rounds
HEPD	C869				18
WP	C870				14
Illum Visible	C871				5
Illum IR	C484				5
FRTR	C875				80

Notes:

<sup>1</sup> Indicates Standard.

**Table 2–14**  
**AC 120mm Mortar**

Event	Type				AC
	HE	WP	Illum	FRTR	
Crew/SEC/Plt Training w/81mm insert	0	0	0	20	4
EXEVAL Training	12	6	4	22	1
EXEVAL	10	6	6	24	1
ARTEP LFX <sup>1</sup>	12	8	6	20	2
CALFEX	16	7	8	20	1

**Rounds per Tube**

	DODIC				Rounds
HE w/MOF	CA04				16
HEPD	C623				46
WP	CA03				35
Illum	C625				16
IR Illum	CA07				14
FRTR	CA09				186

Notes:

<sup>1</sup> Indicates Standard.

**Table 2–15**  
**NG 120mm Mortar**

Event	Type				NG
	HE	WP	Illum	FRTR	
Crew/SEC/Plt Training 120mm	0	0	0	26	1
EXEVAL Training	0	10	9	24	1
EXEVAL LFX <sup>1</sup>	18	10	9	26	1

**Rounds per Tube**

	DODIC				Rounds
HEPD	C623				18
FRTR	CA09				76
WP	CA03				20
Illum	C625				9
IR Illum	CA07				9

Notes:

<sup>1</sup> Indicates Standard.

*k. O-CHLOROBENZYL DENEMALONONITRITE (CS) Chamber Strategy* (See table 2–16).

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.



**Table 2–16**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

*1. Demolitions.* Training standards for each system are given below. Training resources to support these tasks are contained in table 2–17.

(1) Antitank, Antipersonnel Mine standard.

(a) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have employed inert mines to Soldier's Manual standards (tasks: Install/remove the M16A1 AP (Anti-Personnel mine) mine (Korea only), M15 AT mine, M19 AT mine, M21 AT mine and inert US anti-handling devices) every 12 months.

(b) All squads and platoons with a mission training plan (MTP) requirement must have met MTP standards (tasks: Install/recover or transfer a hasty protective minefield and emplace a tactical (ROW) minefield using inert mines every 12 months. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines. Presidential Decision Directive (PDD) 48 on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional anti-personnel mines. Mines or mine systems containing anti-personnel mines with self-destruct capabilities are authorized for training.

(2) Demolition standard (AC Only).

(a) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition-firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct a Modernized Demolition Initiator (MDI) initiating/detonating assembly, prime explosives with MDI, and prime explosives with detonating cord) every 12 months.

(b) All squads must have employed inert and live demolitions to MTP standards (task: Breach obstacles) every 12 months.

**Table 2–17 (FM 3–34.2)**  
**Demolitions Munitions Expressed in BN Lots**

Munitions	DODIC	Scouts/Mortars
Demolitions - C–4 (11/4 lb) <sup>1</sup>	M023	1236
Detonating Cord (Ft)	M456	6798
Holder M9	ML45	2000
Igniter M81	MN08	110
Non electric Cap M11	ML47	1575
Non electric Cap M13	MN90	50
Non electric Cap M14	MN06	110

Notes:

<sup>1</sup> If C–4 is not available, substitute trinitrotoluene (TNT). Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb. package size. This table combines individual and unit demolition quantities.

**Table 2–18**  
**Pyrotechnics<sup>1, 2</sup>**

Nomenclature	DODIC	AR BN	AR Sep Co	CAV Sqd	CAV Sep Trp
<b>Active Component</b>					
HG Smk HC	G982	62	18	98	19
HG Smk GRN	G940	66	21	98	13
HG Smk YEL	G945	114	22	86	18
HG Smk RED	G950	42	9	60	11
HG Smk VIOL	G955	56	8	38	6
HG Smk CS	G963	32	8	22	2
Smk Pot Floating M4A2	K511	6	1	16	8
Sig Illum GRN Para	L305	34	7	26	4
Sig Illum RED Para	L306	40	9	52	5
Sig Illum WH Para	L307	40	8	30	5
Sig Illum RED Star	L311	30	6	15	4
Sig Illum WH Star	L312	42	10	54	11
Sig Illum GRN Star	L314	64	10	54	7
Flare Surface Trip	L495	54	9	30	6
Sim Proj Grnd Burst	L594	338	59	176	44
Sim Proj Air Burst Liq (SPAL), M9 w/20 sims	L595	2 <sup>3</sup>	1 <sup>3</sup>	2 <sup>3</sup>	1 <sup>3</sup>
Sim Booby-trap Flash	L598	36	9	34	12
Sim Booby-trap Illum	L599	48	8	25	6
Sim Booby-trap Whis	L600	62	9	48	11
Sim Hand Gren	L601	220	86	160	16
<b>Reserve/National Guard</b>					
HG Smk HC	G982	57	12	68	18
HG Smk GRN	G940	63	13	36	1
HG Smk YEL	G945	67	13	52	18
HG Smk RED	G950	25	6	36	9
HG Smk VIOL	G955	25	5	20	6
HG Smk CS	G963	27	5	20	5
Smk Pot Floating M4A2	K511	3	1	8	2
Sig Illum GRN Para	L305	19	4	16	4
Sig Illum RED Para	L306	21	6	28	7
Sig Illum WH Para	L307	24	5	20	5
Sig Illum RED Star	L311	15	4	16	4
Sig Illum WH Star	L312	39	7	40	9
Sig Illum GRN Star	L314	27	7	28	6
Flare Surface Trip	L495	33	6	20	6
Sim Proj Grnd Burst	L594	218	59	120	44
Sim Proj Air Burst Liq (SPAL), M9 w/20 sims	L595	1 <sup>3</sup>			
Sim Booby-trap Flash	L598	30	6	28	8
Sim Booby-trap Illum	L599	30	5	20	6
Sim Booby-trap Whis	L600	51	6	36	9

**Table 2–18**  
**Pyrotechnics<sup>1</sup>, <sup>2</sup>—Continued**

Sim Hand Gren	L601	150	47	104	28
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Notes:

<sup>1</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit commanders may desire to use more or less pyrotechnics for a particular exercise than what is suggested.

<sup>2</sup> Opposing force (OPFOR) requirements are included in the above table.

<sup>3</sup> Denotes one kit of 20 simulators.

## 2–6. Training Aids, Devices, Simulators and Simulations

A realistic approach to training that includes live fire and training aids, devices, simulators and simulations (TADSS) are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced.

*a. Tank Weapons Gunnery Simulation System.* Tank Weapons Gunnery Simulation System (TWGSS) is a vehicle-appended precision force on force training system that simulates main gun and coaxial (COAX) machine gun firing for the M1, M1A1, and M1A2 tanks. It interfaces with the vehicle fire control system and permits precision full use of the fire control system in precision and degraded-mode. A simulated tracer and impact burst is superimposed in the sights as the actual round would fly and impact. TWGSS collects actual gunner/tank commander (TC) events to be utilized during the after-action review (AAR). Tank Weapons Gunnery Simulation System is interoperable with the precision gunnery system (PGS), multiple integrated laser engagement system (MILES), thru-sight video (TSV), laser target interface device (LTID), and Improved Tank Gunfire Simulator (ITGS). Tank Weapons Gunnery Simulation System also provides target tracking training, 1/2 and 1/10 scale gunnery training, and should be used for force-on-force training to reinforce gunnery skills learned during gunnery training.

*b. Thru-Sight Video (TSV).* Thru-Sight Video (TSV) is a vehicle-appended system that records crew audio and the gunner's sight picture on Abrams-series tanks and Bradley-series vehicles. The system consists of an on-vehicle video and audio recording package and an off-vehicle AAR substation. The system makes a video recording of the gunner's sight picture, shows the date and time, and marks the video at the instant the trigger is activated on MGS and RECCE vehicles.

*c. Laser Target Interface Device (LTID).* The Laser Target Interface Device (LTID) permits laser based training or MILES laser beams to activate target scoring mechanisms.

*d. Caliber .50 Tank In-bore Sub-caliber Device.* This device is used on the M1, M1A1, and M1A2 tanks to engage full-scale and half-scale targets on a full-scale range or facility where .50 cal ammunition is allowed. It consists of a bolt-action, single-shot, rifle-type breech mechanism that attaches to a modified M2 machine gun barrel that mounts inside a 105-mm/120-mm gun tube. The ammunition for the cal .50 tank in-bore device is the sabot light armor penetrator with tracer (SLAP-T) round (Department of Defense Identification Code (DODIC: AA38)) that may be found in crew table VI as an initial live-fire gunnery trainer, table VII for remedial crew training, and tables IX and XI for section/platoon collective training.

*e. Abrams Full-Crew Interactive Simulator Trainer .* Abrams Full-Crew Interactive Simulator Trainer (A-FIST) is a tank-appended training device for use by NG components in their local armories. It provides interactive, full-crew M1 and M1A1 tank training procedures. Upgrades are being considered for the A-FIST to replace the mobile conduct-of-fire trainer ((COFT) (MCOFT)) as a less-expensive trainer for each armory with a tank available to append the device. The MCOFT would continue to be used by units without A-FIST and without a tank at their armory.

*f. Multiple Integrated Laser Engagement System.* This very effective, eye-safe laser system is used with several weapons systems and blank ammunition. The Multiple Integrated Laser Engagement System (MILES) provides a means to train and sustain combat skills in a realistic force-on-force environment using actual equipment. It enhances realism in force-on-force tactical exercises and develops weapons proficiency, as well as many individual and collective combat skills. The system provides real-time feedback to both the individual Soldier and leaders.

*g. Engagement Skills Trainer–2000.* The Engagement Skills Trainer–2000 (EST–2000) is a multipurpose virtual marksmanship training device. The technology is essentially the same as the SDSSTD, but with marksmanship training scenarios for all tank squad weapons: M9, M16/M4, M203, M249, M240B, M21/24, MK–19 Grenade Machine Gun (GMG), M2 cal .50 MG, and AT–4. The EST scenarios are the courses of fire in the Field Manual (FM). Training scenarios are provided to support several basic skills programs of instruction and tactical firing tasks.

*h. Multiple Integrated Laser Engagement System XXI.* The devices will be used by all Career Management Fields (CMF) that participate in force-on-force exercises. Multiple Integrated Laser Engagement System XXI devices will simulate actual weapons characteristics and provide a means to objectively assess weapons effects during force-on-force training. By providing these capabilities in a training environment, Soldiers will be able to make and correct mistakes that would result in casualties in actual combat. Devices covered by this operational requirements document (ORD) will support elements of every mission area as they participate in force-on-force training exercises at home station.

i. *MK-19 Tactical Engagement Simulation System (TESS)*. MK-19 Tactical Engagement Simulation System (TESS) is an interim MILES solution for the MK-19 GMG. It is a direct line of sight (LOS) solution that can operate either mounted or dismounted. It was specifically developed to support the Stryker brigade combat teams (SBCT) at initial operational test and evaluation (IOT&E) because of the large number of vehicles equipped with the MK-19 GMG. It was not developed to meet the MK-19 requirements for the Army. This training device will be replaced when one TESS is fielded to the Army.

j. *Conduct-of-Fire Trainer*. New crews training toward the minimum proficiency level (Group 2, Original Matrix-commander/gunner and commander) must be given priority training time. It is imperative that new crews receive approximately 10 to 12 hours of intensive training when initially entering the COFT training program. Prerequisites for live fire are: the crew will complete Group 2 of the original matrix and exercises 101 through 116 (Group 1 of the advanced matrix) and conduct the gate exercise that is selected at random by the computer (exercises 130 through 144). Completing these prerequisites ensures the crew has mastered the gunnery skills related to range firing. Upon completion of range firing, all battle-roster crews should continue to fire through the advanced matrix. A crew that is intact prior to the next gunnery cycle would only have to successfully complete a gate exercise to meet live-fire prerequisites. Subsequent proficiency-level goals: After a crew completes live-fire prerequisites, their training time can be reduced to 2 to 4 hours a month. At this pace, crews should attain the following proficiency levels in the time shown. (See table 2-19)

**Table 2-19**  
**Subsequent Proficiency Level Goals**

Time	Goal
12 to 15 hours	Complete Advanced Matrix Group 2
14 to 17 hours	Complete Advanced Matrix Group 3
18 to 24 hours	Complete Advanced Matrix Group 4
No completion	Sustainment Training

(1) *Advanced Gunnery Training System*. Advanced Gunnery Training System (AGTS) minimum proficiency level goals are as follows:

(a) New crews training toward the minimum proficiency level must be given priority training time. It is imperative that new crews receive 10 to 12 hours of intensive training when initially entering the crew training program. The goal is to complete basic pre-live-fire and gate-to-live fire exercises during the first week of training. A crew that is intact prior to the next gunnery cycle would only have to successfully complete a gate-to-live fire exercise to meet live-fire prerequisites.

(b) Subsequent proficiency level goals: After a crew completes basic pre-live-fire and gate-to-live fire exercises, their training time can be reduced to 2 to 4 hours a month. At this pace, crews should attain the proficiency levels depicted in table 2-20.

**Table 2-20**  
**Subsequent Proficiency Level Goals**

Time	Goal
10 to 15 hours	Complete Advanced Skill Level 1
18 to 24 hours	Complete Advanced Skill Level 2
26 to 30 hours	Complete Advanced Skill Level 3
No completion	Sustainment Training

(2) *Commander's Matrix Advanced Gunnery Training System, U.S. Army Reserve/National Guard*. New crews follow the same requirements as AGTS for live-fire prerequisites, with the following exception: Crews complete Reticle Aim 8 through 14 in the commander/gunner matrix and Reticle Aim 6 through 10 in the AGTS basic matrix and then are entered as a new crew in the crew training program. A crew that is intact prior to the next gunnery cycle would only have to successfully complete a gate exercise to meet live-fire prerequisites.

(3) *Abrams Full-Crew Interactive Simulation Training, U.S. Army Reserve/National Guard*. The MCOFT and Abrams Full-Crew Interactive Simulation Training (AFIST XXI) should be integrated with other training devices such as laser based training devices/TSV to work on identified skill weaknesses (for example, target hand-off, tracking,

range estimation, and so forth). The COFT will be used to train crews on gunnery tables II and III, to practice table V, and to prepare for follow-on MCOFT sessions. New crews in MCOFT and AFIST XXI will follow the same requirements as COFT, with the following exception: Crews enrolled in the AFIST XXI system will automatically start in Group 0 this is the same as Group 2 in the original matrix (COFT) and basic matrix (AGTS). Upon completion of Group 0, the system will progress the crew to exercise 101. A crew that is intact prior to the next gunnery cycle would only have to successfully complete a gate exercise to meet live-fire prerequisites.

(a) U.S. Army Reserve/National Guard units may require additional time to meet their live-fire prerequisites and subsequent proficiency level goals due to training constraints.

(b) All simulators must have an instructor/operator (I/O) dedicated to operate the simulator while crews are training.

(4) *Bradley Advanced Training System.* The Bradley Advanced Training System (BATS) is a conduct-of-fire-type device to support the M-3 Cavalry Fighting Vehicle (CFV). The BATS provides an improved fire control capability that more closely replicates that of the actual Bradley. It includes initial, qualification, and sustainment-level training. All BATSs are capable of networking into a squad and section trainer configuration. The crew, squad, and section can progress through increasingly difficult training scenarios, based on a computer assessment of their attained skill levels. The I/O monitors their progress and can select specific exercises as needed. The modes of operation shall include the flexibility of presenting a realistic threat target array, based on unit wartime mission scenarios. As a maneuver trainer, BATS is required to provide full-crew, squad, and section modules that operate and interact on a computer-generated battlefield.

## 2-7. Abrams Series Tanks

These strategies include Abrams series tanks within the Tank Battalions, Divisional Cavalry Squadrons, and Armored Cavalry Squadrons. These strategies cover the AC, the BCT, the Reserve, and National Guard components.

a. Standards and strategies for the battalion from individual through collective training—

(1) Crews will conduct the basic qualification course (Tank table IV/TCPC) every six months using laser based devices or dry fire followed by live fire using the cal .50 Inbore Device. Each crew member must pass a record Tank Crew Gunnery Skill Test (TCGST) within six months before progressing to table IV. The tank crew must qualify on table IV before negotiating the intermediate qualification course (table VIII). The goal is for 100 percent of crews to qualify on tables X and table XII.

(2) Crews must have conducted live-fire preparatory training in accordance with FM 3-20.12, chapter 13 (Tank Gunnery, Abrams) before live firing.

(3) Each crew must have passed a record TCGST and qualified on table IV within six months before negotiating the intermediate qualification course (table VIII). The tank crew must successfully complete table VIII before negotiating the collective qualification course (tables X and XII). Level I gunnery density includes tank tables I through XII. The minimum standard at the conclusion of the Level I gunnery density is 85 percent of the assigned crews must have qualified through table VIII and 75 percent of sections and platoons must have qualified tables X and XII. Level II gunnery density includes tank tables I through VIII and will be considered a sustainment gunnery. The minimum standard at the conclusion of the Level II gunnery density is 85 percent of the assigned crews must have qualified through table VIII. A qualified crew is a Tank Commander and Gunner combination that has met table VIII standards together every 6 months. The Reserves and National Guard Legacy components will execute table VIII once every 24 months. The minimum standard at the conclusion of the gunnery density provided by the notional strategy is 85 percent of assigned crew must have qualified through table VIII. BCTs will execute table VIII once every 12 months. The minimum standard at the conclusion of the gunnery density provided by the notional strategy is 85 percent of assigned crew must have qualified through table VIII during Level II density.

(4) For AC only, each crew member must have passed the record TCGST and qualified on tables IV and VIII within six months before negotiating the collective advanced qualification courses (tables X and XII). A qualified platoon is a Platoon Leader and Platoon Sergeant that has met table XII standards together every 12 months. Platoons will conduct table XII every 12 months. The qualification levels are: - 7 of 9 platoons in a tank battalion - 7 of 9 tank platoons in an Armored Cavalry Regiment (ACR) - 3 of 4 tank platoons in a divisional - 4 of 6 tank platoons in a Combined Arms Battalion (CAB) - 13 of 18 sections in a tank battalion - 13 of 18 tank sections in an ACR - 6 of 8 tank sections in a divisional - 13 of 18 tank sections in a CAB.

b. Table 2-21 and 2-22 is a unit-roll up table for Tank Units with platform ammunition for the unit(s) listed. The annual rounds needed to resource one tank battalion, combined arms battalion, divisional cavalry squadron, or armored cavalry squadron for the AC, Reserve, and National Guard are captured on the following tables:

**Table 2–21**  
**Abrams Roll-up**

EVENT/table	Freq		DODIC				
	AC	USAR/NG	C785/C520	C784/C511	NA	A131	A557
COFT/AGTS <sup>2</sup>	12	6	0	0	0	0	0
AFIST XXI <sup>2</sup>	0	12	0	0	0	0	0
TCGST DIAG	2	1	0	0	0	0	0
TCGST RECORD <sup>1</sup>	2	1	0	0	0	0	0
TCPC <sup>2</sup>	2	1	TADSS	TADSS	TADSS	0	0
LFAST <sup>2</sup>	2	1	2	2	2	100	100
table V	2	1	3	3	0	325	50
table VI	2	1	0	0	0	675	225
table VII	2	1	8	5	0	450	150
table VIII <sup>2</sup>	2	.5	13	8	0	550	150
table IX	1	0	0	0	0	300	100
table X	1	0	5	0	0	325	100
table XI	1	0	0	0	0	200	100
table XII <sup>2</sup>	1	0	10	0	0	225	100
CALFEX	1	0	3	0	0	200	200

**Unit Training**

Plt FTX	4	1	TADSS	TADSS	TADSS	0	
Co/TRP FTX	2	0	TADSS	TADSS	TADSS	0	
BN/sqd FTX	2	0	TADSS	TADSS	TADSS	0	
Co/TRP FCX	2	0	TADSS	TADSS	TADSS	0	
BN/sqd FCX	2	0	TADSS	TADSS	TADSS	0	
<b>Tank, AC</b>			70	36	28	5400	1850
<b>Tank, USAR NG</b>			26	18	14	2075	625

Notes:

<sup>1</sup> Rounds per year per weapon system.

<sup>2</sup> Indicates Standard.

**Table 2–22**  
**Abrams Roll-up continued**

EVENT/table	DODIC						
	A585 <sup>3</sup>	AA38 <sup>3</sup>	G978	A111	A598	LA06	LA07
COFT/AGTS <sup>2</sup>	0	0	0	0	0	0	0
AFIST XXI <sup>2</sup>	0	0	0	0	0	0	0
TCGST DIAG	0	0	0	0	0	0	0
TCGST RECORD <sup>1</sup>	0	0	0	0	0	0	0
TCPC <sup>2</sup>	0	0	0	100	0	18	0
LFAST <sup>2</sup>	0	0	0	0	0	0	0
table V	0	0	0	0	0	3	0
table VI	14	14	0	0	0	10	0
table VII	11	16	0	0	0	6	0
table VIII <sup>2</sup>	0	0	0	0	0	10	0

**Table 2-22**  
**Abrams Roll-up continued—Continued**

table IX	0	15	0	0	0	7	0
table X	0	0	0	0	0	0	0
table XI	0	20	0	200	100	9	9
table XII <sup>2</sup>	0	0	0	0	0	9	9
CALFEX	0	0	4	0	0	20	20
<b>Unit Training</b>							
Plt FTX	0	0	0	400	100	18	6
Co/TRP FTX	0	0	0	400	100	36	14
BN/sqd FTX	0	0	0	200	100	18	24
Co/TRP FCX	0	0	0	0	0	8	8
BN/SQ FCX	0	0	0	0	0	8	8
<b>Tank, AC</b>	50	95	0	3200	900	351	177
<b>Tank, USAR NG</b>	25	30	0	500	100	83	127

Notes:

<sup>1</sup> Rounds per year per weapon system.

<sup>2</sup> Indicates Standard.

<sup>3</sup> To be used with caliber .50 In-bore devices.

c. The weapons table 2-23 below illustrates annual rounds per weapon system by events.

**Table 2-23**  
**Collective Roll-Up by Event per Platform**

<b>Weapon System</b>	<b>TYPE</b>	<b>DODIC</b>	<b>AC</b>	<b>RC</b>
Tank Main Gun	TPCDS-T	C785/C520	70	26
Tank Main Gun	TP-T <sup>1</sup>	C784/C511	36	18
Tank Main Gun	MPAT-TP-T <sup>1</sup>	NA	28	14
7.62MM LNKD 4 BALL-1TR	Ball	A131	5400	2075
.50 4 BALL-1 TRCR F/M2	Ball	A557	1850	625
.50 cal Inbore APIT	APIT	A585	50	25
.50 cal INBORE SLAP-T	SLAP-T	AA38	95	30
RED PHOS	Red Phos	G978	4	0
7.62mm	Blank	A111	3200	500
.50 cal	Blank	A598	900	100
MGSS	M30	LA06/	351	83
DIFCUE	M31	LA07	177	127

Notes:

<sup>1</sup> C784 and C511 shall be used until the training MPAT-TP-T round is fielded.

## 2-8. M3 Cavalry Fighting Vehicle

These strategies include units equipped with the M3 CFV and cover the AC, Reserve, and National Guard components.

a. *Cavalry Fighting Vehicle (M3)*. The standards are given below for each component. Recommended training strategies and ammunition resources are given in tables (PGS) for AC, BCT, Reserve, and National Guard components.

(1) Each crew member must pass the Gunnery Skills Test (GST) within six months before progressing to the basic qualification course (table IV). The CFV crew must qualify on table IV before progressing to live fire.

(2) Crews should have conducted live-fire preparatory training in accordance with FM 3-20.8 (Scout Gunnery).

(3) Each crew member must have qualified on table IV within six months before negotiating the crew qualification

course (table VIII). The CFV crew must successfully complete table VIII before negotiating the section/platoon qualification course (table X). Eighty-five percent of the assigned crews will qualify on table VIII every six months. Sixty-six percent of the BCTs assigned crews will qualify on table VIII every 12 months. Fifty percent of the National Guard and Reserves assigned crews will qualify on table VIII every 24 months. Eighty-five percent of sections within an ACR and Divisional Cavalry Squadrons will qualify on table X every 12 months. A qualified crew is a Track Commander and Gunner combination that has met table VIII standards together every 12 months. All tables will be executed in accordance with FM 3–20.8 (Scout Gunnery).

(4) For the AC only, each crew member must have passed the GST, qualified on tables IV and VIII, and must have completed table IX within the last six months. Sections will conduct table X every 12 months.

*b.* table 2–24 and 2–25 is a unit-roll up table for CFV Units with platform ammunition for the unit(s) listed.

**Table 2–24**  
**Cavalry Fighting Vehicle Roll-up**

Event/table	Freq			DODIC			
	AC	NG BCT	RC	A940	A976	WH05	L592
PGT <sup>2</sup>	12	12	12	0	0	0	0
BATS <sup>2</sup>	12	6	6	0	0	0	0
GST <sup>2</sup>	2	1	1	0	0	0	0
BCPC <sup>2</sup>	2	2	2	TADSS	TADSS	TADSS	0
Screening <sup>2</sup>	4	1	1	3	2	0	0
table V	2	1	1	0	0	0	0
table VI	2	1	1	40	40	0	2
table VII	2	1	1	48	40	0	2
table VIII <sup>2</sup>	2	1	.5 <sup>1</sup>	48	48	0	2
TOW <sup>2</sup>	1	0	0	0	0	1	0
table IX/XI	1	0	0	TADSS	TADSS	0	0
table X/XII <sup>2</sup>	1	0	0	48	48	0	0
CALFEX	1	0	0	24	24	1	2
<b>UNIT TRAINING</b>							
Plt FTX	3	1	1	TADSS	TADSS	0	0
Co/TRP FTX	2	1	1	TADSS	TADSS	0	0
BN/sqd FTX	4	0	0	TADSS	TADSS	0	0
Co/TRP FCX	1	1	1	TADSS	TADSS	0	0
BN/sqd FCX	2	0	0	TADSS	TADSS	0	0
Tact table C	2	1	0	TADSS	TADSS	0	0
Tact table F	2	0	0	TADSS	TADSS	0	0
Tact table I	2	0	0	TADSS	TADSS	0	0
<b>AC</b>				356	336	1	14
<b>NG BCT</b>				163	106	0	6
<b>USAR/NG</b>				142	132	0	6

Notes:

<sup>1</sup> Rounds per year per weapon system.

<sup>2</sup> Indicates Standard.



**Table 2–25**  
**Cavalry Fighting Vehicle Roll-up continued**

Event/table	Freq			DODIC			
	AC	NG BCT	RC	A131	G978	A111	LA06
PGT <sup>2</sup>	12	12	12	0	0	0	0
BATS <sup>2</sup>	12	6	6	0	0	0	0
GST <sup>2</sup>	2	1	1	0	0	0	0
BCPC <sup>2</sup>	2	2	2	TADSS	0	0	17
Screening <sup>2</sup>	4	1	1	0	0	0	0
table V	2	1	1	600	0	0	10
table VI	2	1	1	400	0	0	12
table VII	2	1	1	450	0	0	32
table VIII <sup>2</sup>	2	1	.5 <sup>1</sup>	550	0	0	34
TOW <sup>2</sup>	1	0	0	0	0	0	20
table IX/XI	1	0	0	0	0	0	0
table X/XII <sup>2</sup>	1	0	0	450	0	100	20
CALFEX	1	0	0	200	16	0	0
<b>UNIT TRAINING</b>							
Plt FTX	3	1	1	0	0	100	18
Co/TRP FTX	2	1	1	0	0	100	36
BN/sqd FTX	4	0	0	0	0	100	18
Co/TRP FCX	1	1	1	0	0	0	8
BN/sqd FCX	2	0	0	0	0	0	8
Tact table C	2	1	0	0	0	0	0
Tact table F	2	0	0	0	0	0	0
Tact table I	2	0	0	0	0	0	0
<b>AC</b>				4650	16	1000	472
<b>NG BCT</b>				2000	0	200	184
<b>USAR / NG</b>				2000	0	200	184

Notes:

<sup>1</sup> Rounds per year per weapon system.

<sup>2</sup> Indicates Standard.

## 2–9. High Mobility Multipurpose Wheeled Vehicle Combat systems

These strategies include units equipped with the High Mobility Multipurpose Wheeled Vehicle (HMMWV) combat systems and cover the AC, BCT, Reserve, and National Guard components.

*a. High Mobility Multipurpose Wheeled Vehicle.* The standards are given below for each component. Recommended training strategies and ammunition resources are given in tables for AC, BCT, Reserve, and National Guard components.

(1) Each crew member must pass the GST within six months before negotiating the Basic Crew Proficiency Course (table IV/Bradley Crew Proficiency Course (BCPC)). The crew must qualify on table IV before negotiating the Mounted Qualification Course (table VIII).

(2) Crews must have conducted live-fire preparatory training in accordance with FM 3–20.8 (Scout Gunnery).

(3) Each crew member must have passed the GST and qualified on table IV every six months before negotiating the mounted qualification course (table VIII). The crew must successfully complete table VIII before negotiating the Section/Platoon Qualification Course (table X). The standard for AC is ninety percent of M2 and MK19 crews will meet table VIII standards every six months. BCTs are ninety percent of M2 and MK19 crews will meet table VIII standards every 12 months. National Guard and Reserve is ninety percent of M2 and MK19 crews will meet table VIII standards every 24 months.

(4) Each crew member must have passed the GST and qualified on tables IV and VIII within six months before negotiating the Section/Platoon Qualification Course. Sections will conduct table X every 12 months.

*b.* Unit-roll up table 2–26 for HMMWV Units with platform ammunition for the type unit(s) listed.

**Table 2–26**  
**High Mobility Multipurpose Wheeled Vehicle Unit**

Event/table	Freq		DODIC									
	AC	RC	B584	A557	A598	A131	A111	LA06	LA07	L592	L367	WH05
GST	2	1	0	0	0	0	0	0	0	0	0	0
table I	2	6	0	0	0	0	0	0	0	0	0	0
table II	2	1	0	0	0	0	0	0	0	0	0	0
table III	2	2	0	0	0	0	0	0	0	0	0	0
table IV	2	1	0	0	0	0	0	0	0	0	0	0
table V	2	1	48	300	0	100 <sup>1</sup>	0	3	0	20	0	0
table VI A/B	2	1	56	350	0	100 <sup>1</sup>	0	4	0	20	0	0
table VII A/B	2	1	88	550	0	175 <sup>1</sup>	0	7	6	18	0	0
table VIII A/B	2	1	96	600	0	175 <sup>1</sup>	0	6	6	18	0	0
table IX /XI	1	0	0	0	0	0	0	0	4	0	0	0
table X/XII	1	0	56	350	0	100	0	4	4	12	0	0
CALFEX	1	0	48	300	0	100	0	0	0	0	0	1
TOW Fire	0	1 per Plt	0	0	0	0	0	0	0	0	0	1 per Plt
Sqd/Plt/Co FTX/ STX	2	1	0	0	200	0	400	0	0	0	3	0
BN FTX	1	1	0	0	200	0	400	0	0	0	4	0
EXEVAL (ARTEP)	1	0	0	0	200	0	400	0	0	0	4	0
<b>Total AC</b>			680	4250	800	200/ 1300 <sup>1</sup>	1,600	44	52	164	14	1
<b>Total NG BCT</b>			536	2360	400	550 <sup>1</sup>	800	20	12	76	7	1 per Plt
<b>Total USAR/NG</b>			288	1800	400	550	800	20	22	76	7	1 per Plt

Notes:

<sup>1</sup> Indicates TOW HMMWV only.

## 2–10. Reconnaissance Vehicle

These strategies below include reconnaissance vehicles (RV) within the RSTA Squadron. These unit strategies are currently applicable to the AC. Standards and strategies for the squadron from individual through collective training:

*a.* Each crew member must pass the GST within six months before progressing to Basic Ground Firing tables (table II). Each RV crew must qualify on table II before progressing to the Basic Crew Proficiency Course (table IV).

*b.* Each crew member must pass the GST and qualified table II within six months before progressing to the Basic Crew Proficiency Course (table IV). The RV crew must qualify on table IV before progressing to live fire.

*c.* Crews must have conducted live-fire preparatory training in accordance with FM 3–20.8 (Scout Gunnery).

*d.* Each vehicle crew member must have passed the GST and qualified tables II and IV within six months before negotiating the Vehicle Qualification Course. The vehicle crew must qualify on table VI before negotiating the Crew Qualification Course (table VIII).

*e.* Each crew member must have passed the GST and qualified tables II, IV, and VI within six months before negotiating the Crew Qualification Course (table VIII). The dismounts must have qualified with their personnel and crew-served weapons within six months before negotiating the Crew Qualification Course. The crew must qualify table VIII before negotiating the Section/Platoon Qualification Course (table X). Eighty-five percent of the assigned crews will qualify on table VIII every six months. A qualified crew is a RV Commander and Gunner combination that has

met table VIII standards together every 12 months. All tables will be executed in accordance with FM 3–20.8 (Scout Gunnery).

f. Each crewmember must have passed the GST and qualified on tables II, IV, VI and VIII before negotiating the Section/Platoon Qualification Course. Sections must complete table X every 12 months.

g. Unit-roll up table 2–27 for RV Units with platform ammunition for the unit(s) listed.

**Table 2–27**  
**Reconnaissance Vehicle roll-up**

Event/table	# Gunners	Freq	DODIC					
			B584	A557	A131	A598	A111	LA06
I	2	2	0	0	0	0	0	0
II <sup>1</sup>	2	2	248	560	0	0	0	0
III	2	2	72	450	0	0	0	0
IV <sup>1</sup>	2	2	112	700	0	0	0	0
V	2	2	0	0	0	0	0	0
VI <sup>1</sup>	2	2	0	0	0	650	250	0
VII	2	2	104	650	250	0	0	0
VIII <sup>1</sup>	2	2	104	650	300	0	0	0
IX	2	2	0	0	0	0	0	0
X <sup>1</sup>	2	2	56	350	300	0	0	0
CALFEX		1	48	300	200	0	0	0
Sqd FTX		1	0	0	0	100	200	0
Plt FTX		2	0	0	0	100	400	0
TRP FTX		2	0	0	0	100	400	0
Sqd FCX		1	0	0	0	0	0	0
TRP FCX		2	0	0	0	0	0	0
<b>PER PLATOON</b>			2656	12640	4800	1000	3600	200
<b>PER CREW</b>			1440	7020	1900	1800	2300	100
<b>PER DENSTIY</b>		4	664	3160	1200	250	900	50

Notes:

<sup>1</sup> Indicates Standard.

## Chapter 3

### Artillery

#### 3–1. Description

a. This chapter provides gunnery training programs for units equipped with 105-mm howitzers, 155-mm howitzers, the Multiple Launch Rocket System (MLRS), the High Mobility Artillery (ARTY) Rocket System (HIMARS), and the Bradley Fire Support Vehicle (BFSV). Each program is composed of a standard for qualification, a suggested training strategy to achieve the standard and the ammunition required to execute the strategy. This chapter also provides training strategies, weapon qualification standards and resource requirements for individual weapons and crew-served small arms weapons. The qualification standards for field artillery weapons are stated in paragraph 3–5. The suggested training strategy and ammunition quantities are contained in the tables at the end of this chapter. Events in the strategies are from the artillery tables (ATs) of the cannon and MLRS mission training plans (MTPs) and the Bradley tables (BTs) for the BFSV.

b. The objective of the weapons training programs is to provide the unit commander models for attaining and sustaining weapon proficiency throughout the training year. Proficiency is achieved through the use of dry-fire exercises; training aids, devices, simulators and simulations (TADSS); and live-fire exercises.

### 3-2. Training Aids, Devices, Simulators and Simulations

A realistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew-served weapons TADSS information are contained in appendix B.

### 3-3. Non-Infantry Urban Operations Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on commanders' Mission Essential Task List (METL). The Urban Operations (UO) training strategy outlines training events a unit commander can choose to conduct. The UO Training Strategy information is contained in appendix C.

### 3-4. Individual Weapons Training, Requirements and Qualification

This section contains TADSS information, weapons qualification, and collective training resource requirements for AC and RC Field Artillery (FA) units and the ammunition for the FA cadre of the U.S. Army Reserve schools. Individual weapons qualification requirements contain two strategies; one for units equipped with the Engagement Skills Trainer 2000 (EST-2000) and one for units without the EST 2000.

a. *M9 Automatic Pistol Standard* (see table 3-1).

(1) Ninety percent of Soldiers assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 within the past six months.

(2) Eighty percent of RC assigned the M9 will meet the qualification standards of the CPQC in FM 3-23.35 within the past 12 months.

**Table 3-1**  
**M9 Qualification (FM 3-23.35)**

Event	Type	DODIC	Rounds	FREQ	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	7/0	2	1
CPQC table VII Night Fire <sup>1,2</sup>	Ball/EST	AA49	5/0	2	1
<b>Total Rounds for Qualifications</b>					
Non EST Equipped Units	Ball	AA49		184	92
EST Equipped Units	Ball	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Units assigned to installations equipped with Engagement Skills Trainer (EST) 2000, will conduct table VI Nuclear, Biological, and Chemical (NBC) fire and table VII Night fire on the Engagement Skills Trainer (EST) 2000.

b. *M16 Rifle/M4 Carbine* (see table 3-2).

(1) Primary and Secondary day sight: The primary sight is either the Close Combat-optic (CCO)/Advance Combat Optical Gunsight (ACOG) or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight Day.

(2) Requirements without EST 2000: Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard (ARNG) will alternate primary and secondary sight qualification every year, if equipped. The Continental United States (OCONUS) units will request A059 Ball in lieu of AA33. If Lead-free is required request AA45.

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day and NBC record course.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(4) Day Requirements with EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(5) Night Requirements for the Thermal Weapon Sight (TWS) and Infrared (IR) Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day course with one modification; the timed target exposures are increased by two seconds for each target presented.

**Table 3–2**  
**M16/M4 Qualifications (FM 3.23–9)**

		DODIC <sup>3</sup>		FREQ	
Event	Type	AA33	A063	AC	RC
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
			Subtotal		
Close Combat Optic (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	EST/LMTS <sup>5</sup>			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Practice Record	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
		Subtotal	294		196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight (TWS) <sup>2</sup>					
Zero (WFOV & NFOV) <sup>1, 4</sup>	Ball	36		2	1
Night Field Fire I	Ball	36		2	1
Practice Record	Ball	40		2	1
Record <sup>1</sup>	Ball	40		2	1
		Subtotal	304		152
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Ball	18		2	1
IR Night Field Fire I	Ball	36		2	1
IR Practice Record	Ball	40		2	1
IR Record <sup>1</sup>	Ball	40		2	1
		Subtotal	268		134

**Table 3–2**  
**M16/M4 Qualifications (FM 3.23–9)—Continued**

	Total Rounds AC w/o EST/w/ EST		RC w/o EST/w/ EST
	AA33	A063	A063
Iron Sight Only Qual	356/196	40/0	20/0
CCO & BIS Qual	454/294	40/0	20/0
Thermal Weapon Sight	304/304	0/0	0/0
Infrared	268/268	0/0	0/0
<b>Collective Training</b>			
	DODIC	Rounds	FREQ
SQD/PLT/Co STX/FTX <sup>4</sup>	A080	120	1
EXEVAL <sup>4</sup>	A080	120	.5
SQD/PLT LFX <sup>4</sup>	A059/A063	130/20	0

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> Outside the Continental United States (OCONUS) units will request A059 Ball in lieu of AA33. If Lead-free ammunition is required, request DODIC AA45.

<sup>4</sup> Wide Field Of View (WFOV), Narrow Field of View (NFOV), Squad (SQD), Platoon (PLT), Company (Co), Situation Training Exercise (STX), Field Training Exercise (FTX), Live Fire Exercise (LFX), and External Evaluation (EXEVAL).

<sup>5</sup> Laser Marksmanship Training System (LMTS)

*c. M203 Grenade Launcher (GL).* (see table 3–3) Ninety percent of soldiers assigned the M203 GL will meet the day qualification standards in FM 3–22.31 within the past six months for the AC and eighty percent for the RC within the past 12 months.

**Table 3–3**  
**M203 Qualification (FM 3–22.31)**

Event	Type	DODIC	Rounds	FREQ	
				AC	RC
Day Zero <sup>1</sup>	TP <sup>2</sup>	B519	6	2	1
Day Qualification <sup>1</sup>	TP	B519	15	2	1
<b>Total Rounds for Qualification</b>	TP	B519		42	21
<b>Collective Training</b>					
SQD/PLT/Co LFX	TP	B519	4	1	0

Notes:

<sup>1</sup> Indicates Standards.

<sup>2</sup> Training Projectile (TP)

*d. M249 Machine Gun Standard* (see table 3–4).

(1) Primary and Secondary day sight: The primary sight is the Machine Gun Optics (MGO) or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 in the Light Machine Gun (LMG) role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve (RC) Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The RC will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification: the timed target exposures are increased by two seconds for each target presented.

*e. M60 Machine Gun/M240B Machine Gun Standard.*

(1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3–22.68 lists a 7 to 9 round burst. Qualification must be conducted using a 5 to 7 round burst. Refer to table 3–4 for ammunition allocation.

(3) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(4) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The RC will alternate primary and secondary sight qualification every year if equipped.

(5) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(6) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(7) Night Requirements for the Thermal Weapon Sight (TWS) and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification: the timed target exposures are increased by two seconds for each target presented.

**Table 3–4**  
**M60/M240B and M249 LMG Qualification (FM 3–22.68)<sup>2</sup>**

Event	Type	DODIC		FREQ		RC
		A143 or A062	A131 or A064	AC w/o MGO	AC w/ MGO	
Preliminary Marksmanship Training	TADSS			4	4	4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero For Bipod & Tripod <sup>1</sup>	Ball/EST	24/0 <sup>3</sup>	~	2	3	1
10m Practice	Ball/EST	161/0 <sup>3</sup>	~	2	3	1
10m Record <sup>1</sup>	Ball/EST	91/0 <sup>3</sup>	~	2	3	1
<b>Subtotal with EST</b>	Ball			<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal without EST</b>	Ball			<b>552</b>	<b>828</b>	<b>276</b>
<b>Firing table II</b>						
Transition Zero <sup>1</sup>	Mix	~	28	2	3	1
Transition Practice	Mix	~	154	2	3	1
Transition Record <sup>1</sup>	Mix	~	154	2	3	1
<b>Subtotal</b>						
<b>TWS Qualification</b>						
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	~	36	2	2	1
TWS Night Field Fire III	Mix	~	154	2	2	1
TWS Limited Visibility Practice	Mix	~	154	2	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	~	154	2	2	1
<b>Subtotal</b>						
<b>IR Qualification</b>						

**Table 3-4**  
**M60/M240B and M249 LMG Qualification (FM 3-22.68)<sup>2</sup>—Continued**

IR Zero <sup>1</sup>	Mix	~	18	2	2	1
IR Night Field Fire III	Mix	~	154	2	2	1
IR Practice	Mix	~	154	2	2	1
IR Qualification <sup>1</sup>	Mix	~	154	2	2	1
<b>Subtotal</b>						
<b>Total Rounds</b>			<b>AC</b>		<b>RC</b>	
			<b>A143/ A062</b>	<b>A131/ A064</b>		
Primary Sight Qualification w/EST			0	672	0	336
Primary Sight Qualification wo/EST			552	672	276	336
MGO & Iron Sight Qual wo/EST			828	1008		
MGO & Iron Sight Qual w/EST			0	1008		
TWS Qualification			0	996	996	498
IR Qualification			0	960	960	480
<b>Collective Training DODIC</b>			<b>Rounds</b>		<b>RC</b>	
PLT/Co LFX	A131/A064		300		0	
SQD/PLT/Co FTX/STX	A111/A075		400		1	
EXEVAL	A111/A075		200		0.5	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA44.

<sup>3</sup> The first number refers to rounds required for ball and the second number refers to EST.

*f. M249 AR Standard* (see table 3-5).

(1) Primary and Secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.68 and if equipped with night vision devices, conduct night qualification in accordance with TC 23- AIMSS (Advance Infantry Marksmanship Strategies and Standards) within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.68 and night qualification standards in TC 23-AIMSS every 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification: the timed target exposures are increased by two seconds for each target presented.



**Table 3–5**  
**M249 Automatic Rifle Qualification**

		DODIC		FREQ	
Event	Type	A062	A064	AC	NG/USAR
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball/EST	6/0 <sup>2</sup>		2	1
10m Practice	Ball/EST	51/0 <sup>2</sup>		2	1
10m Record <sup>1</sup>	Ball/EST	51/0 <sup>2</sup>		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
Subtotal (A062/A064)					
Units not equipped with EST				216/288	108/144
Units equipped with EST				0/288	0/144
Machine Gun Optic (Primary Sight)					
Preliminary Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero (MGO) <sup>1</sup>	Ball/EST	6/0 <sup>2</sup>		2	N/A
10m Practice (MGO)	Ball/EST	51/0 <sup>2</sup>		2	N/A
10m Record (MGO) <sup>1</sup>	Ball/EST	51/0 <sup>2</sup>		2	N/A
Iron Sight 10m Zero	Ball/EST	6/0 <sup>2</sup>		1	N/A
Iron Sight 10m Practice	Ball/EST	51/0 <sup>2</sup>		1	N/A
Iron Sight 10m Record	Ball/EST	51/0 <sup>2</sup>		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		12	2	N/A
Transition Practice (MGO)	Mix		66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		66	2	N/A
Iron Sight Transition Zero	Mix		12	1	N/A
Iron Sight Transition Practice	Mix		66	1	N/A
Iron Sight Transition Record	Mix		66	1	N/A
Subtotal (A062/A064)					
Units not equipped with EST				324/432	N/A
Units equipped with EST				0/432	N/A
Firing table III TC 23–AIMSS					
Thermal Weapon Sight (TWS)					
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix		36	2	1
TWS Night Field Fire III	Mix		66	2	1
TWS Limited Visibility Practice	Mix		66	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix		66	2	1
Subtotal					
Infrared					
IR Zero <sup>1</sup>	Mix		18	2	1

**Table 3–5**  
**M249 Automatic Rifle Qualification—Continued**

IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
<b>Subtotal</b>				
<b>Total Rounds</b>				
		<b>AC w/o EST/w/ EST</b>		<b>NG/USAR w/o EST/w/ EST</b>
	<b>DODIC</b>	<b>A064</b>	<b>A062</b>	<b>A064</b>
Iron Sight Only		288/288	108/0	144/144
MGO & Iron Sight		432/432	N/A	N/A
Thermal Weapon Sight		468/468	0/0	234/234
Infrared		432/432	0/0	216/216
<b>Collective Training</b>				
	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>NG/USAR</b>
SQD/PLT/CO STX/FTX	A075	300	2	1
EXEVAL	A075	300	1	0.5
SQD/PLT LFX	A064	300	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> The first number refers to rounds required for ball and the second number refers to EST.

g. M2 .50 cal MG (see table 3–6).

(1) Ninety percent of Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 23–65 within the past six months for the Active Army and eighty percent for the National Guard within the past 12 months.

(2) Day requirements: Qualify on the Day Qualification table II.

(3) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 3–6**  
**M2HB .50 caliber Qualification (FM 3–22.65)**

				<b>FREQ</b>	
<b>Event</b>	<b>Type</b>	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>NG/USAR</b>
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
<b>Night Qualification</b>					
<b>AN/PEQ–2A</b>					
Night Zero <sup>1</sup>	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>AN/PAS–13 HTWS</b>					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Total Rounds for Qualification</b>					

**Table 3-6**  
**M2HB .50 caliber Qualification (FM 3-22.65)—Continued**

Day Qualification					
table I & II	Mix	A557	560	280	
Night Qualification					
AN/PEQ-2A Qualification	Mix	A557	556	278	
AN/PAS-13 HTWS Qualification	Mix	A557	576	288	
Collective Training					
SQD/PLT/Co STX/FTX		A598	300	2	1
EXEVAL		A598	300	1	.5
SQD/PLT LFX		A557	100	1	0
Notes:					
<sup>1</sup> Indicates Standard.					

*h. MK-19 Grenade Machine Gun (GMG) Standard* (see table 3-7).

(1) Ninety percent of Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 every six months. The MK-19 GMG table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3-22.27 to determine which table to utilize and number of rounds to request.

(2) Eighty percent of National Guard Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ-2A and AN/PAS-13 HTWS. Night qualification is required for each NVD assigned.

**Table 3-7**  
**MK-19 Grenade Machine Gun Qualification (FM 3-22.27)**

Event	DODIC	Type	Rounds	FREQ	
				AC	NG/USAR
Preliminary Marksmanship Training		TADSS		4	4
Day Qualification					
table I Day Practice	B584 <sup>2</sup>	TP-T	62	2	1
table II Day Qualification <sup>1</sup>	B584 <sup>2</sup>	TP-T	62	2	1
Night Qualification					
AN/PEQ-2A					
table III Night Practice	B584 <sup>2</sup>	TP-T	62	2	1
table IV Night Qualification <sup>1</sup>	B584 <sup>2</sup>	TP-T	62	2	1
AN/PAS-13					
table III Night Practice	B584 <sup>2</sup>	TP-T	62	2	1
table IV Night Qualification	B584 <sup>2</sup>	TP-T	62	2	1
Total Rounds for Qualification					
Day Qualification					
table I & II	B584 <sup>2</sup>			248	124
Night Qualification					
AN/PEQ-2A	B584 <sup>2</sup>			248	124
AN/PAS-13	B584 <sup>2</sup>			248	124
Collective Training					

**Table 3–7**  
**MK–19 Grenade Machine Gun Qualification (FM 3–22.27)—Continued**

SQD/PLT LFX	B584 <sup>2</sup>	30	1	0
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Notes:

<sup>1</sup> Indicates Standards.

<sup>2</sup> B584 will be replaced by BA12 when fielded.

*i. AT–4 Standard* (See table 3–8). Ten percent of the assigned Soldiers (E–5s and below) will qualify on Day Qualification table III in accordance with FM 3–23.25 every 12 months for Active Army and National Guard. Qualification is conducted using the M287 sub-caliber tracer trainer.

**Table 3–8**  
**AT–4 Qualification (FM 3–23.25 & ST 23–AIMSS)**

Event	DODIC	Rounds	FREQ	
			AC	NG/USAR
table I Instructional Day <sup>1</sup>	A358	12	1	1
table II Instructional Night <sup>1</sup>	A358	12	1	1
table III Day Qualification <sup>1,2</sup>	A358	8	1	1
<b>Total Rounds for Qualification</b>				
Qualification/Instructional Fire	A358		32	32

Notes:

<sup>1</sup> Ten percent of E–5 and below will qualify on table III only.

<sup>2</sup> Indicates Standard.

*j. M1200 Shotgun Standard* (see table 3–9).

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 3–9**  
**M1200 Qualification (STP 19–95C1–SM)**

Event	DODIC	Type	Rounds	FREQ	
				AC	NG/USAR
Preliminary Marksmanship Training		TADSS	0	4	4
Instructional Fire	A011	Buckshot	3	2	1
Qualification Fire <sup>1</sup>	A011	Buckshot	10	2	1
<b>Total Rounds for Qualification</b>					
	A011	Buckshot		26	13

Notes:

<sup>1</sup> Indicates Standard.

*k. Hand Grenade Qualification Standard.* Qualification requirements for Soldiers assigned to an Infantry or Recon platoon/section differ from CS/CSS Soldiers. Consult the appropriate requirements below. Live grenade throw is not required for qualification. Mock Bay training is required for the live hand grenade throw in accordance with FM 3–23.30.

(1) Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 within the past year and throw a live grenade within the past 24 months.

(2) National Guard Infantry; Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 within the past training year and throw a live grenade once every two training years.

**Table 3–10**  
**Hand Grenade (FM 3–23.30)**

Event	DODIC	Rounds	FREQ <sup>2</sup>	
			AC	NG/USAR
Mock Bay	G878	2	0.5	0.5
Hand Grenade Qualification Course <sup>1</sup>	G878	6	1	1
<b>Total For Qualification</b>				
	<b>G878</b>		<b>7</b>	<b>7</b>
Live Grenade Throw	G881	1	0.5	0.5

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> 0.5 Indicates every two years.

*l. M18A1/A2 Claymore Mine Standard* (see table 3–11). Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert Claymore mine to standard in accordance with FM 23–23 every 12 months.

**Table 3–11**  
**M18 Claymore Mine (FM 23–23)**

Event	Type	Rounds	FREQ	
			AC	NG
Employment Instruction/Qualification <sup>1</sup>	Inert	N/A	4	1
No rounds required for qualification				

Notes:  
<sup>1</sup> Indicates Standards.

*m. Chamber Strategy* (see table 3–12).

(1) The O–Chlorobenzyl Denemalononitrite (CS) Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 3–12**  
**O–Chlorobenzyl Denemalononitrite Chamber/Protective Mask**

Event	DODIC	Capsules	FREQ	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

### 3–5. Artillery Proponent Strategies

This section provides weapons standards, training strategies, training devices, and resource requirements for Active Component, Army Reserves and National Guard Artillery Companies, Batteries (btry) and Battalions (BN) equipped with 105mm howitzer, 155mm howitzer, Multiple Launch Rocket System (MLRS), High Mobility Artillery Rocket System (HIMARS), and prior to Bradley Fire Support Vehicle (BFSV) weapon systems.

*a. 105 mm Howitzer.* It is not possible to provide ammunition to train all FA fire missions. table 3–13 shows fire mission candidates from which the unit must choose to include in its METL.

**Table 3–13**  
**105-mm Howitzer Candidate Fire Missions Identified in the MTPs.1X6/3X6**

Fire Mission	CS <sup>1</sup>	Btry	BN
Echelons Above BN Mass			X
Fire-for-Effect (FFE) (BN Mass)			X
Engage a Moving Target Array		X	X
Low-Angle Adjust (Fuze time)	X	X	X
Precision Registration		X	X
High Burst (HB)/Mean Point of Impact (MPI) Registration		X	X
High-Angle Adjust [Radar or Forward Observer (FO)]		X	X
Coordinated Illumination	X		X
Final Protective Fire (FPF) Adjust	X	X	
Simultaneous Missions	X	X	
Emergency Mission		X	
Quick Smoke	X	X	
Irregularly Shaped Target			X
Time on Target (TOT)	X	X	X
Schedule of Fires	X	X	X
Immediate Suppression	X	X	
Priority Target	X	X	
Illumination	X	X	
Direct Fire		X	X
Meteorological Plus Velocity Error (Met + VE)		X	X
Met to Target (outside transfer limits)	X		X
Immediate Smoke	X	X	
Sweep and Zone	X	X	
Assault Fire		X	
Multiple Volley Mission		X	X
Fire For Effect (FFE) Chemical (Cannot be live-fired)		X	X
FFE Improved Conventional Munitions (ICM)/Dual Purpose ICM (DPICM) (Cannot be live-fired)		X	X

Notes:  
<sup>1</sup> Close support.

*b. Tables 3–14 through 3–19 list the number of rounds authorized to conduct qualification and collective events. For small arms qualification and collective events refer to paragraph 3–4, tables 3–1 through 3–11.*

*c. Qualification Standards.* As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to Army Training and Evaluation Program (ARTEP)-MTP standards twice annually for active component (AC) units and once annually for National Guard (NG) units.

**Table 3–14**  
**Ammunition Requirement and Training Strategy for the 105-mm Howitzer Battalion<sup>1</sup>**

		DODIC/Type					
		A010	C445	C479	C454	C449	C463
Artillery table/Event	FREQ	Blank <sup>2</sup>	HE	Smk	WP	Illum	RAP
XIV btry Certification	6	48					
XV btry Qualification	6		86				
XV Special Missions <sup>3</sup>	4		8	6	6	12	
RAP Training	2						6
XVII BN Certification	5	144					
XVIII BN Qualification	5		223		6	18	
Btry EXEVAL	1		94	6	6	12	
Btry CALFEX <sup>6</sup>	7		71	6		18	
BN EXEVAL	1		223		6	18	
BN CALFEX <sup>6</sup>	1		223		6	18	
<b>Totals</b>							
Btry training (ATs XIV/XV/CALFEX <sup>6</sup> & EXEVAL) <sup>4</sup>		288	1139	72	30	186	12
Total for training 3 btrys		864	3417	216	90	558	36
Total for BN training		720	1561	0	42	126	
Total for training <sup>5</sup>		1584	4978	216	132	684	36

Notes:

<sup>1</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-relates fire missions to ARTEP–MTP standards annually.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>4</sup> Includes 36 rounds for semi-annual direct fire exercises.

<sup>5</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

<sup>6</sup> Combine Arms Live Fire Exercise (CALFEX)

**Table 3–15**  
**Ammunition Requirements and Training Strategy for the Division Readiness Brigade, 105mm Direct Support Howitzer Battalion**  
<sup>1</sup>

		DODIC/Type					
		A010	C445	C479	C454	C449	C463
Artillery table/Event	FREQ	Blank <sup>2</sup>	HE	Smk	WP	Illum	RAP
Company CALFEX <sup>3, 7</sup>	9		200	21	17	70	
FCX <sup>8</sup> /Walking Shoot <sup>7</sup>	6		275				
Div Arty LFX <sup>7</sup>	2		300	4		12	
XIV btry Certification	6	48					
XV btry Qualification	6		86				
XV Special Missions <sup>4</sup>	4		8	6	6	12	
RAP Training	2						6
XVII BN Certification	5	144					
XVIII BN Qualification	5		223		6	18	
Btry EXEVAL	1		94	6	6	12	
Btry CALFEX	7		71	6		18	
BN EXEVAL	1		223		6	18	
BN CALFEX	1		223		6	18	

**Table 3–15**  
**Ammunition Requirements and Training Strategy for the Division Readiness Brigade, 105mm Direct Support Howitzer Battalion<sup>1</sup>—Continued**

Totals						
BTRY training (ATs XIV/XV/CALFEX & EXEVAL) <sup>5</sup>	288	1139	72	30	186	12
Total for training 3 btrys	864	3417	216	90	558	36
Total for BN training	720	1561	0	42	126	0
Total for training <sup>6</sup>	1584	4978	216	132	684	36

Notes:

<sup>1</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-relates fire missions to ARTEP–MTP standards annually.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Includes aviation observed fire shoot.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> 36 of the HE rounds are to be used for semi-annual direct fire exercises.

<sup>6</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

<sup>7</sup> Total is per Battalion.

<sup>8</sup> Fire Coordination Exercise (FCX).

**Table 3–16**  
**Ammunition Requirements and Training Strategy for the National Guard 105-mm Howitzer Battalion<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type					
		A010	C445	C479	C454	C449	C463
		Blank <sup>2</sup>	HE	Smk	WP	Illum	RAP
XIV Btry Certification	4	48					
XV Btry Qualification	4		86				
XV Special Mission <sup>3</sup>	2		8	6	6	12	
RAP Training	2						6
XVII BN Certification	5	144					
XVIII BN Qualification	2		223		6	18	
Btry EXEVAL	1		94	6	6	12	
Btry CALFEX <sup>6</sup>	4		71	6		18	
BN EXEVAL/CALFEX <sup>6</sup>	1		223		6	18	
Totals							
Btry training (ATs XVI/XV/CALFEX <sup>6</sup> & XEVAL) <sup>4</sup>		192	738	42	18	108	12
BN training		720	869	0	18	54	36
Training 3 btrys		576	2214	126	54	324	0
Total for Training <sup>5</sup>		1296	3083	126	72	378	36

Notes:

<sup>1</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-relates fire missions to ARTEP–MTP standards annually.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>4</sup> Includes 36 rounds for semi-annual direct fire exercises.

<sup>5</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

<sup>6</sup> Combine Arms Live Fire Exercise (CALFEX).



**Table 3–17**  
**Ammunitions Requirements and Training Strategy for the 105-mm Separate Howitzer Battery <sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type					
		A010 Blank <sup>2</sup>	C445 HE	C479 Smk	C454 WP	C449 Illum	C463 RAP
XIV btry Certification	6	48					
XV btry Qualification	6		86				
XV Special Missions <sup>3</sup>	4		8	6	6	12	
RAP Training	2						6
Btry EXEVAL	1		94	6	6	12	
Btry CALFEX	7		71	6		18	
Total for training <sup>4,5</sup>		288	1139	72	30	186	12

Notes:

<sup>1</sup> As part of the battery, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Special munitions training strategy (smoke, WP, illum).

<sup>4</sup> Includes 18 of the HE rounds are to be used for an annual direct fire exercise.

<sup>5</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

**Table 3–18**  
**Ammunition Requirements and Training Strategy for the Division Readiness Brigade 105-mm Separate Howitzer Battery <sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type					
		A010 Blank <sup>2</sup>	C445 HE	C479 Smk	C454 WP	C449 Illum	C463 RAP
Company CALFEX <sup>3</sup>	9		67	7	6	24	
FCX/Walking Shoot	6		92				
LFX	2		100	2		4	
XIV btry Certification	6	48					
XV btry Qualification	6		86				
XV Special Missions <sup>4</sup>	4		8	6	6	12	
RAP Training	2						6
Btry EXEVAL	1		94	6	6	12	
Btry CALFEX	7		71	6		18	
Total for training <sup>5, 6</sup>		288	2494	139	84	410	12

Notes:

<sup>1</sup> As part of the battery, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Includes aviation observed fire shoot.

<sup>4</sup> Special munitions training strategy (smoke, WP, illum).

<sup>5</sup> Includes 12 rounds for semi-annual direct fire exercises.

<sup>6</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

**Table 3–19**  
**Ammunition Requirements and Training Strategy for 105 mm (2X8) Howitzer Battalion<sup>1, 6, 5</sup>**

table/Event	FREQ	DODIC/Type					
		A010 Blank <sup>2</sup>	C445 HE	C479 Smk	C454 WP	C449 Illum	C463 RAP
XIV btry Certification	6	64					
XV btry Qualification	6		114				
XV Special Missions <sup>3</sup>	4		8	6	6	12	
RAP Training	2						8
XVII BN Certification	5	128					
XVIII BN Qualification	5		198		5	18	
Btry EXEVAL	1		125	8	8	16	
Btry CALFEX	7		94	8		24	
BN EXEVAL	1		198		5	16	
BN CALFEX	1		198		5	16	
Total for 8 gun btry training (ATs/XIV/XV/CALFEX& EVAL) <sup>3</sup>		384	1499	88	32	232	16
Total for training 2 btrys		768	2998	176	64	464	32
Total for training BN		640	1386	0	35	122	
Total for training <sup>4</sup>		1408	4384	176	99	586	32

Notes:

<sup>1</sup> The fires battalion for the light Brigade Combat Team (BCT) will shoot the same missions with the same number of rounds per mission as the 3X6 battalion legacy force.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Special Munitions training strategy (smoke, WP, Illum).

<sup>4</sup> Includes 36 HE rounds for semi-annual direct fire exercises.

<sup>5</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

<sup>6</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL related fire missions to ARTEP–MTP standards annually.

**Table 3–20**  
**Ammunition Requirements and Training Strategy for the National Guard 105 mm (2X8) Howitzer Battalion<sup>1, 6, 5</sup>**

table/Event	FREQ	DODIC/Type					
		A010 Blank <sup>2</sup>	C445 HE	C479 Smk	C454 WP	C449 Illum	C463 RAP
XIV btry Certification	4	64					
XV btry Qualification	4		114				
XV Special Missions <sup>3</sup>	2		8	6	6	12	
RAP Training	2						8
XVII BN Certification	5	128					
XVIII BN Qualification	2		198		5	18	
Btry EXEVAL	1		125	8	8	16	
Btry CALFEX	4		94	8		24	
BN EXEVAL	1		198		5	16	
BN CALFEX	1		198		5	16	
Total for 8 gun btry training (ATs/XIV/XV/CALFEX& EVAL) <sup>3</sup>		256	973	52	20	126	16
Total for training 2 btrys		512	1946	104	40	152	32

**Table 3–20**  
**Ammunition Requirements and Training Strategy for the National Guard 105 mm (2X8) Howitzer Battalion<sup>1, 6, 5</sup>—Continued**

Total for training BN	640	792	0	20	68	
Total for training <sup>4</sup>	1152	2738	104	60	220	32

Notes:

<sup>1</sup> The fires battalion for the light BCT will shoot the same missions with the same number of rounds per mission as the 3X6 battalion legacy force.

<sup>2</sup> Shot gun shells are used in non-firing exercises.

<sup>3</sup> Special Munitions training strategy (smoke, WP, Illum).

<sup>4</sup> Includes 36 HE rounds for semi-annual direct fire exercises.

<sup>5</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464).

<sup>6</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL related fire missions to ARTEP–MTP standards annually.

*d. 155 mm Howitzer.* It is not possible to provide ammunition to train all FA fire missions table 3–20 shows fire mission candidates from which the unit must choose to include in its METL.

**Table 3–22**  
**155-mm Howitzer Candidate Fire Missions Identified in the Mission Training Plans**

	3X6 BN			CAV btry		Sep btry			LID GS btry		
Fire Mission	PLT	Btry	BN	Btry	BN	PLT	Btry	BN	PLT	Btry	BN
Echelons Above BN Mass			X		X			X			X
FFE (BN Mass)			X		X			X			X
Engage a Moving Target Array		X	X	X	X	X	X		X	X	
Low-Angle Adjust (Fuze time)	X	X	X	X	X	X	X	X	X	X	X
Precision Registration	X	X	X	X	X	X	X	X	X	X	X
High Burst/MPI Registration		X	X	X	X		X	X		X	X
High-Angle Adjust (Radar or FO)	X	X	X	X	X	X	X	X	X	X	X
Coordinated Illumination			X		X			X			X
FPF Adjust	X	X		X		X	X		X	X	
Simultaneous Missions			X		X			X			X
Emergency Mission	X	X		X		X	X		X	X	
Quick Smoke		X		X			X			X	
Irregularly Shaped Target			X		X			X			X
TOT	X	X	X	X	X	X	X	X	X	X	X
Schedule of Fires	X	X	X	X	X	X	X	X	X	X	X
Immediate Suppression	X	X		X		X	X		X	X	
Priority Target	X	X		X		X	X		X	X	
Illumination		X		X			X			X	
Direct Fire	X	X		X		X	X		X	X	
Met + VE	X	X	X	X	X	X	X	X	X	X	X
Met to Target (outside transfer limits)			X		X			X			X
Immediate Smoke	X	X		X		X	X		X	X	
Sweep and Zone		X	X	X	X		X	X		X	X
Assault Fire	X	X		X		X	X		X	X	
Multiple Volley Mission	X	X	X	X	X	X	X	X	X	X	X
FFE Copperhead	X	X		X		X	X		X	X	

**Table 3–22**  
**155-mm Howitzer Candidate Fire Missions Identified in the Mission Training Plans—Continued**

FFE Chemical (Cannot be live-fired)	X	X	X	X	X	X	X	X	X	X	X
FFE Family of Scatterable Mines (FASCAM) (Cannot be live-fired)			X		X			X			X
FFE ICM/DPICM (Cannot live fire)	X	X	X	X	X	X	X	X	X	X	X

*e. Tables 3–21 through 3–24 list the number of rounds authorized to conduct qualification and collective events. Tables 3–25 through 3–30 list the number of rounds authorized to conduct qualification and collective events in a Stryker Brigade Combat Team (SBCT). Small arms qualification and collective events refer to paragraph 3–4, tables 3–1 through 3–11.*

*f. Qualification Standards.* As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually for active component (AC) units and once annually for Army National Guard (ARNG) units. Alternatively, howitzer sections may qualify once live and once dry annually. Use the Fire Support Combined Arms Tactical Trainer (FSCATT) for the dry iteration. Ammunition saved by using the FSCATT may be used for other collective training at the discretion of the commander.

**Table 3–22**  
**Ammunition Requirements and Training Strategy for the 155-mm Direct Support Howitzer Battalion<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523 Primers <sup>2</sup>	D544 HE	D528 Smk	D550 WP	D505 Illum	D579 RAP	D510 CPHD <sup>8</sup>
XI PLT Certification	2	100						
XII PLT Qualification <sup>3</sup>	2		50					
XIV btry Certification	3	100						
XV btry Qualification <sup>3</sup>	3		75					
XV Special Missions <sup>4</sup>	2		8	6	6	12		
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup> ,	5		173		6	18		
Btry EXEVAL	1		83	6	6	12		
Btry CALFEX	1		83	6	6	12		
BN EXEVAL	1		173		6	18		
BN CALFEX	1		173		6	18		
BN Copperhead Tng	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	100					
Total PLT Training (6 PLTs)		1200	600					
Total btry training (ATs XIV/XV/CALFEX/EX-EVAL) <sup>5</sup>		300	407	24	24	48	12	0
Total for training 3 btrys		900	1221	72	72	144	36	0
Total for BN training		1750	1211	0	42	126	0	2

**Table 3–22**  
**Ammunition Requirements and Training Strategy for the 155-mm Direct Support Howitzer Battalion<sup>1</sup>—Continued**

Total for training <sup>6,7</sup>	2650	2432	72	114	270	36	2
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Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, illum).

<sup>5</sup> Includes 18 of the HE rounds are to be used for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

<sup>8</sup> Copperhead (CPHD).

**Table 3–23**  
**Ammunition Requirements and Training Strategy for the 155-mm General Support Howitzer Battalion<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XI PLT Certification	2	100						
XII PLT Qualification <sup>3</sup>	2		50					
XIV btry Certification	3	100						
XV btry Qualification <sup>3</sup>	3		75					
XV Special Missions <sup>4</sup>	2		8	6	6	12		
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup>	5		173		6	18		
Btry EXEVAL	1		83	6	6	12		
Btry CALFEX	1		83	6	6	12		
BN EXEVAL/CALFEX	1		173		6	18		
BN Copperhead Training	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	100					
Total PLT training (6 PLTs)		1200	600					
Total btry training(ATs/XIV /XV/CAL-FEX/EXEVAL) <sup>5</sup>		300	407	24	24	48	12	
Total for training 3 btry s		900	1221	72	72	144	36	
Total for BN training		1750	1038		36	108		2
Total for training <sup>6,7</sup>		3850	2259	72	108	252	36	2

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

Table 3–24

Ammunition Requirements and Training Strategy for the 155mm Direct Support (2X8) Howitzer Battalion<sup>1, 3, 5,6,7,8</sup>

table/ Event	FREQ	DODIC/Type						
		N523 Primers <sup>2</sup>	D544 HE	D528 Smk	D550 WP	D505 Illum	D579 RAP	D510 CPHD
XI PLT Certification		133						
XII PLT Qualification	2	67	67					
XIV btry Certification	2	133						
XV btry Certification	3	100	100					
XV btry Qualification	2	28	7					
XV Special Missions <sup>4</sup>	2			5	5	11		
RAP Training	5	312					5	
XVII BN Qualification	5	175	154		5	16		
XVIII BN Qualification	1	142	110		8	16		
Btry EXEVAL	1	106	74	8	8	16		
Btry CALFEX	1	175	154	8	5	16		
BN EXEVAL	1	175	154		5	16		
BN CALFEX	1							
BN Copperhead Training	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		267	134					
Total PLT Training (4 PLTs)		1068	536					
Total btry training (ATs/XIV/XV/CALFEX/EX-EVAL)		903	542	26	23	54	25	
Total for Training 2 btrys		1806	1084	52	46	108	50	
Total for BN training		1192	1034	0	38	112		2
Total for training		2998	2118	52	82	220	50	2

## Notes:

<sup>1</sup> This table reflects the 2X8 Modular battalion assigned to the heavy BCT. There are 2 platoons of 4 guns each.<sup>2</sup> Primers are used in non-firing exercises.<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.<sup>4</sup> Special Munitions training strategy (smoke, WP, illum).<sup>5</sup> Includes 24 HE rounds for an annual direct fire exercise.<sup>6</sup> Fuzes by DODIC; PD (N360), Time (N285), MTSQ (N286), VT (N464), MOFA (NA08).<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12), MACS M232 (DA12).<sup>8</sup> As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL related fire missions to ARTEP–MTP standards twice annually.

**Table 3–25**  
**Ammunition Requirements and Training Strategy for the National Guard 155mm Direct Support (2X8) Howitzer Battalion<sup>1, 3, 5,6,7,8</sup>**

table/ Event	Freq	DODIC/Type						
		N523 <sup>2</sup>	D544	D528	D550	D505	D579	D510
		Primers	HE	Smk	WP	Illum	RAP	CPHD
XI Platoon Certification	2	133						
XII Platoon Qualification	1		67					
XIV Battery Certification	3	133						
XV Battery Qualification	2		100					
XV Special Missions <sup>4</sup>	1			5	5	11		
RAP Training	2						5	
XVII Battalion Certification	5	175						
XVIII Battalion Qualification	1		110		8	16		
btry EXEVAL	1		74	8	8	16		
btry CALFEX	1		74	8	8	16		
BN EXEVAL	1		154		5	16		
BN CALFEX	1		154		5	16		
BN Copperhead Training	1							2
<b>Totals</b>								
Total per platoon (ATs XI/XII)		266	134					
Total platoon Tng(4 PLTs)		1064	536					
Total btry training (ATs/XIV/XV/CALFEX/EX-EVAL)		399	348	21	21	43	10	
Total for Training 2 btrys		798	696	42	42	86	20	
Total for battalion training		875	418		18	48		2
Total for training		2737	1650	42	60	134	20	2

Notes:

<sup>1</sup> This table reflects the 2X8 Modular battalion assigned to the heavy BCT. There are 2 platoons of 4 guns each.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special Munitions training strategy (smoke, WP, illum).

<sup>5</sup> Includes 24 rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N360), Time (N285), MTSQ (N286), VT (N464), MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12), MACS M232 (DA12).

<sup>8</sup> As part of a platoon or larger unit, each howitzer section must live- fire 80 percent of its METL- related fire missions to ARTEP–MTP standards twice annually.

**Table 3–26**  
**Ammunition Requirements and Training Strategy for the National Guard 155-mm Direct and General Support Howitzer Battalions<sup>1</sup>**

table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XI PLT Certification <sup>3</sup>	2	100						
XII PLT Certification <sup>3,4</sup>	1		27					
XIV btry Certification	3	100						
XV btry Qualification <sup>3</sup>	2		57					
XV Special Missions <sup>4</sup>	1		8	6	6	12		
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup>	1		95		6	18		
Btry EXEVAL	1		65	6	6	12		
Btry CALFEX	1		65	6	6	12		
BN EXEVAL/CALFEX	1		95		6	18		
BN Copperhead Training	1							1
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	27					
Total PLT tng (6 PLTs)		1200	162					
Total btry training ATs/XIVXV/CALFEX/EXEVAL) <sup>5</sup>		300	252	18	18	36	12	
Total for training 3 btrys		900	756	54	54	108	36	
Total for BN training		1750	190	0	12	36		1
Total for training <sup>6,7</sup>		3850	946	54	66	144	36	1

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards once annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes HE 18 rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC;MACS M231 (DA12); MACS M232 (DA13).

**Table 3–27**  
**Ammunition Requirements and Training Strategy for the SBCT 155-mm Direct Support Howitzer Battalion (3x4)<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XIV btry Certification	5	100						
XV btry Qualification <sup>3</sup>	5		77					
XV Special Missions <sup>4</sup>	2		8	4	4	12		
RAP Training	2						4	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup>	5		161		4	18		



**Table 3–27**  
**Ammunition Requirements and Training Strategy for the SBCT 155-mm Direct Support Howitzer Battalion (3x4)<sup>1</sup>—Continued**

Btry EXEVAL	1	85	4	4	12	
Btry CALFEX	1	85	4	4	12	
BN EXEVAL	1	161		4	18	
BN CALFEX	1	161		4	18	
BN Copperhead Training	1					2
<b>Totals</b>						
Total btry training (ATs XIV/XV/CALFEX/EX-EVAL) <sup>5</sup>		500	571	16	16	48 8
Total for training 3 btrys		1500	1713	48	48	144 24
Total for BN training		1750	1127		28	126 2
Total for training <sup>6,7</sup>		3250	2840	48	76	270 24 2

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each section must live-fire 80 percent of its METL-related fire missions to ARTEP MTP standards twice annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations may be executed by using the FSCATT instead of live fire. Ammunition saved can be used for other collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum, RAP).

<sup>5</sup> Includes HE 48 rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC: PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

**Table 3–28**  
**Ammunition Requirements and Training Strategy for the National Guard Stryker Brigade Combat Team 155-mm Direct Support Howitzer Battalions<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XIV btry Certification	1	100						
XV btry Qualification <sup>3</sup>	1		57					
XV Special Missions <sup>4</sup>	1		8	6	6	12		
RAP Training	1						6	
XVII BN Certification	1	350						
XVIII BN Qualification <sup>3</sup>	1		95		6	18		
Btry EXEVAL	1		65	6	6	12		
Btry CALFEX	1		65	6	6	12		
BN EXEVAL/CALFEX	1		95		6	18		
BN Copperhead Training	1							1
<b>Totals</b>								
Total btry training(ATs/XIVXV/CALFEX/EX-EVAL) <sup>5</sup>		100	195	18	18	36	6	
Total for training 3 btrys		300	585	54	54	108	18	
Total for BN training		350	190		12	36		1

**Table 3–28**  
**Ammunition Requirements and Training Strategy for the National Guard Stryker Brigade Combat Team 155-mm Direct Support Howitzer Battalions<sup>1</sup>—Continued**

Total for training <sup>6,7</sup>	750	775	54	66	144	18	1
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Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards once annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

**Table 3–29**  
**Ammunition Requirements and Training Strategy for the 155-mm Cavalry or Separate Howitzer Battery<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XI PLT Certification	2	100						
XII PLT Qualification <sup>3</sup>	2		40					
XIV btry Certification	3	100						
XV btry Qualification <sup>3</sup>	3		73					
XV Special Missions <sup>4</sup>	2		8	6	6			
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup>	5		76		6	16		
Btry EXEVAL	1		81	6	6			
Btry CALFEX	1		81	6	6			
BN EXEVAL	1		76		6	16		
BN CALFEX	1		76		6	16		
BN Copperhead Training	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	80					
Total PLT training (2 PLTs)		400	160					
Total btry training(ATs XIV/XV/CALFEX/ EXEVAL) <sup>5</sup>		300	397	24	24		12	
Total for BN training		1750	794		42	112		2
Total for training <sup>6,7</sup>		2450	1191	24	66	112	12	2

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each Howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time(N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

**Table 3–30**  
**Ammunition Requirements and Training Strategy for the National Guard 155-mm Cavalry or Separate Howitzer Battery**

Artillery table/Event	FREQ	DODIC/Type						
		N523 Primers <sup>1</sup>	D544 HE	D528 Smk	D550 WP	D505 Illum	D579 RAP	D510 CPHD
XI PLT Certification	2	100						
XII PLT Qualification <sup>2</sup>	1		41					
XIV btry Certification	3	100						
XV btry Qualification <sup>2</sup>	2		57					
XV Special Missions <sup>3</sup>	1		8	6	6	12		
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>2</sup>	1		24		6			
Btry EXEVAL	1		65	6	6	12		
Btry CALFEX	1		65	6	6	12		
BN EXEVAL/CALFEX	1		24		6			
BN Copperhead Tng	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	41					
Total PLT tng (2 PLTs)		400	82					
Total btry training(ATs XIV/XV/CALFEX/ EXEVAL) <sup>4</sup>		300	270	18	18	36	12	
Total for BN training		1750	48		12			2
Total for training <sup>5, 6</sup>		2450	400	18	30	36	12	2

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards once annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

**Table 3–31**  
**Ammunition Requirements and Training Strategy for the 155-mm Light Infantry Division Howitzer Battery<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523 Primers <sup>2</sup>	D544 HE	D528 Smk	D550 WP	D505 Illum	D579 RAP	D510 CPHD
XI PLT Certification	2	100						
XII PLT Qualification <sup>3</sup>	2		40					
XIV btry Certification	5	100						
XV btry Qualification <sup>3</sup>	5		75					
XV Special Missions <sup>4</sup>	2		8	6	6			
RAP Training	2						6	
XVII BN Certification	5	350						

**Table 3–31**  
**Ammunition Requirements and Training Strategy for the 155-mm Light Infantry Division Howitzer Battery<sup>1</sup>—Continued**

XVIII BN Qualification <sup>3</sup>	5	69	6	15			
Btry EXEVAL	1	83	6	6			
Btry CALFEX	7	83	6	6			
BN EXEVAL	1	69	6	15			
BN CALFEX	1	69	6	15			
BN Copperhead Training	1						2
<b>Totals</b>							
Total per PLT (ATs XI/XII)	200	80					
Total PLT training (2 PLTs)	400	160					
Total btry training (ATs XIV/XV/CALFEX/EXEVAL) <sup>5</sup>	500	1053	60	60	0	12	0
Total for battalion training	1750	483		42	105		2
Total for training <sup>6,7</sup>	2650	1536	60	102	105	12	2

Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each section must live-fire 80 percent of its METL-related fire missions to ARTEP MTP standards twice annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

**Table 3–32**  
**Ammunition Requirements and Training Strategy for the National Guard 155-mm Light Infantry Division Separate Howitzer Battery<sup>1</sup>**

Artillery table/Event	FREQ	DODIC/Type						
		N523	D544	D528	D550	D505	D579	D510
		Primers <sup>2</sup>	HE	Smk	WP	Illum	RAP	CPHD
XI PLT Certification	2	100						
XII PLT Qualification <sup>3</sup>	1		40					
XIV btry Certification	5	100						
XV btry Qualification <sup>3</sup>	3		75					
XV Special Missions <sup>4</sup>	1		8	6	6			
RAP Training	2						6	
XVII BN Certification	5	350						
XVIII BN Qualification <sup>3</sup>	2		69		6	15		
btry EXEVAL or CALFEX	4		83	6	6			
BN EXEVAL or CALFEX	1		69		6	15		
BN Copperhead Training	1							2
<b>Totals</b>								
Total per PLT (ATs XI/XII)		200	40					
Total PLT training (2 PLTs)		400	80					
Total btry training(ATs XIV/XV/CALFEX/EXEVAL) <sup>5</sup>		500	565	30	30	0	12	0
Total for BN training		1750	207		18	45		2

**Table 3–32**  
**Ammunition Requirements and Training Strategy for the National Guard 155-mm Light Infantry Division Separate Howitzer Battery<sup>1</sup>—Continued**

Total for training <sup>6,7</sup>	2650	762	30	48	45	12	2
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Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each howitzer section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards once annually.

<sup>2</sup> Primers are used in non-firing exercises.

<sup>3</sup> Some qualification iterations of this table may be executed using the FSCATT instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>4</sup> Special munitions training strategy (smoke, WP, Illum).

<sup>5</sup> Includes 18 HE rounds for an annual direct fire exercise.

<sup>6</sup> Fuzes by DODIC; PD (N340); Time (N285); MTSQ (N286); VT (N464); MOFA (NA08).

<sup>7</sup> Propellant charges by DODIC; MACS M231 (DA12); MACS M232 (DA13).

g. MLRS and HIMARS. It is not possible to provide ammunition to train all MLRS fire missions. table 3–31 shows MLRS fire mission candidates from which the unit must choose to include in its METL.

**Table 3–33**  
**MLRS Candidate Fire Missions Identified in the MTPs**

Event	XII PLT Qual	XV Btry Qual	XVIII BN Qual
On Call (ONC)	X	X	X
Fire When Ready (FWR)	X	X	X
At My Command (AMC)	X	X	X
Time On Target (TOT)	X	X	X
Time To Fire (TTF)	X	X	X
Timed Time On Target (TTT)	X	X	X
Timed When Ready (TWR)	X	X	X
Multiple Fire Mission Sequence	X	X	X
Schedule of Fires	X	X	X

h. table 3–32 list the number of reduced range practice rockets (RRPR) authorized to conduct qualification and collective events. For small arms qualification and collective events, refer to paragraph 3–4, tables 3–1 through 3–11.

**Table 3–34**  
**Ammunition Requirements and Training Strategy for the 3x6 Multiple Launch Rocket System or High Mobility Artillery Rocket System Battalion<sup>1</sup>**

table/Mission	FREQ	Reduced range practice rocket (RRPR) DODIC H185
XII PLT Qualification <sup>2</sup>	3	5
XV btry Qualification <sup>2</sup>	2	6
XVIII BN Qualification <sup>2</sup>	4	9
<b>Totals</b>		
Total per PLT		15
Total for PLT Training (6 PLTs)		90
Total per btry		12
Total for btry Training (3 btrys)		36
Total for BN Training		36

**Table 3–34**  
**Ammunition Requirements and Training Strategy for the 3x6 Multiple Launch Rocket System or High Mobility Artillery Rocket System Battalion<sup>1</sup>—Continued**

Total for Training	162
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Notes:

<sup>1</sup> Some qualification iterations of this table may be executed using TADSS and embedded software instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>2</sup> Qualification standards: As part of a platoon or larger unit, each launcher section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

*i. Multiple Launch Rocket System Qualification Standards* (tables 3–35 and 3–37). As part of a platoon or larger unit, each launcher section must live-fire 80 percent of its METL-related fire missions to ARTEP–MTP standards every six months for AC units and every 12 months for ARNG units. Alternatively, launcher sections may qualify once live and once dry every 12 months. Use the training launch pod container (LPC) and the fault insertion panel for the dry iteration. Ammunition saved by using the training devices and embedded software may be used for other collective training at the discretion of the commander.

**Table 3–35**  
**Ammunition Requirements and Training Strategy for the 2X6 Multiple Launch Rocket System Battalion<sup>1</sup>**

table/Mission	FREQ	Reduced range practice rocket (RRPR) DODIC H185
XII PLT Qualification <sup>2</sup>	3	5
XV btry Qualification <sup>2</sup>	2	6
XVIII BN Qualification <sup>2</sup>	4	6
<b>Totals:</b>		
Total per PLT		15
Total for PLT Training (4 PLTs)		60
Total per btry		12
Total for btry Training (2 Btrys)		24
Total for BN Training		24
Total for Training		108

Notes:

<sup>1</sup> Some qualification iterations of this table may be executed using TADSS and embedded software instead of live fire. Ammunition saved can be used for collective training at the discretion of the commander.

<sup>2</sup> Qualification standards: As part of a platoon or larger unit, each launcher section must live-fire eighty percent of its METL-related fire missions to ARTEP–MTP standards twice annually.

**Table 3–36**  
**Ammunition Requirements and Training Strategy for the National Guard (3x6) MLRS Battalion**

table/Mission	FREQ	Reduced Range Practice Rocket (RRPR) DODIC H185
XII PLT Qualification <sup>1</sup>	3	3
XV btry Qualification <sup>1</sup>	2	3
XVIII BN Qualification <sup>1</sup>		
<b>Totals</b>		
Total per PLT		9
Total for PLT Training		54
Total per btry		6
Total for btry Training		18
Total for BN Training		

**Table 3–36**  
**Ammunition Requirements and Training Strategy for the National Guard (3x6) MLRS Battalion—Continued**

Total for Training	72
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Notes:

<sup>1</sup> Qualification standards: As part of a platoon or larger unit, each launcher section must live-fire eighty percent of its METL-related fire mission tasks to AR-TEP MTP standards annually.

*j. Bradley Fire Support Vehicle.* Table 3–35 lists the number of rounds authorized to conduct qualification and collective events. Bradley Fire Support Vehicle (BFSV) Qualification Standards follow:

- (1) Eighty-five percent of vehicle crews will qualify on Bradley tables XA/B once every six months for AC.
- (2) Eighty-five percent of vehicle crews will qualify on Bradley tables XA/B once a year for RC.

**Table 3–37**  
**Ammunition Requirements and Training Strategy for the Bradley Fire Support Vehicle M–7**

Event/Bradley table	DODIC/Type						M21 Hoffman
	FREQ		A976	A146	A134	L602	
	AC	RC	TPDS- T	TPT	Sub cal 7.62	7.62 COAX	
PGT <sup>1</sup>	12	6					
BGST <sup>1</sup>	2	1					
COFT <sup>1</sup>	12	6					
V A/B	2	1			193		
Zero	8	4	3	2		50	
VI A/B	2	1	32	24		400	14
VII A/B	2	1	56	32		400	18
VIII A/B	2	1	48	48		450	21
XA/B	2	0	45	45		250	10
<b>Total per BFSV for AC:</b>			<b>386</b>	<b>314</b>	<b>386</b>	<b>3400</b>	<b>126</b>
<b>Total per BFSV for RC:</b>			<b>148</b>	<b>112</b>	<b>193</b>	<b>1450</b>	<b>53</b>

Notes:

<sup>1</sup> Qualification standards: Eighty-five percent of assigned crews will have qualified on Bradley table VIII within the past six months.

<sup>2</sup> Preliminary Gunner Training (PGT) is conducted monthly. Bradley gunnery skills test (BGST) is conducted prior to live fire density and conduct of fire trainer (COFT) is recommended at 4 hours per crew every month.

<sup>3</sup> Prior to participation in a full caliber live-fire event, crews must have: Passed BGST to standards in accordance with FM 3–22.1 within 3 months. Qualified on the Bradley Proficiency Course (BT II) within 3 months of BT VIII. Zeroed their vehicle weapons systems and fired BT V through VII prior to BT VIII.

<sup>4</sup> Coaxial (COAX).

*k. U.S. Army Reserve Training Battalions.* Tables 3–38 and 3–39 provide the strategy and ammunition for the qualification of the Field Artillery cadre assigned to USAR Training Battalions.

**Table 3–38**  
**Training Strategy per Individual assigned to a U.S. Army Reserve Training Battalion**

Event	FREQ	Who
<b>Skill Level 1 and 2</b>		
Tactical Techniques	1	All
Artillery Direct Fire Trainer (ADFT)	1	All
Live Fire exercise (LFX)	1	All
<b>Skill Level 3 and 4</b>		
Tactical Techniques	2	All
LFX	1	All

**Table 3–39**  
**Ammunition Requirements per Individual assigned to a U.S. Army Reserve Training Battalion**

Ammunition	Phase		
	I	II	III
105-mm HE, C445	6	1	3
155-mm HE, D544	6	1	3
105-mm WP, C454		0.1	0.1
155-mm WP, D550		0.1	0.1
105-mm Illum, C449		0.1	0.1
155-mm Illum, D505		0.1	0.1
105-mm Smoke, C479		0.1	
155-mm Smoke, D528		0.1	

*l. Pyrotechnics.* Table 3–40 delineates ammunition required to conduct small arms collective live fire exercise and the unit’s annual pyrotechnics authorization.

**Table 3–40**  
**Pyrotechnics Rollup<sup>1</sup>**

Pyrotechnics (Annual Battalion Rollup) <sup>2</sup>	DODIC	AC		NG	
		BN	Sep Btry	BN	Sep Btry
HG Smk HC	G982	48	9	18	9
HG Smk GRN	G940	16	2	4	2
HG Smk YEL	G945	48	11	18	9
HG Smk RED	G950	36	10	18	10
HG Smk VIOL	G955	28	5	10	5
HG Smk CS	G963	28	5	10	5
Smk Pot Floating M4A2	K511	20	4	8	4
Sig Illum GRN Para	L305	8	1	2	1
Sig Illum RED Para	L306	28	5	10	5
Sig Illum WH Para	L307	20	4	8	4
Sig Illum RED Star	L311	8	1	2	1
Sig Illum WH Star	L312	20	4	8	4
Sig Illum GRN Star	L314	20	4	8	4
Flare Surface Trip	L495	28	5	10	5
Sim Proj Grnd Burst	L594	104	18	29	18
Sim Proj Air Burst Liq (SPAL), M9 w/20 simulators	L595	2 <sup>3</sup>	1 <sup>3</sup>	1 <sup>3</sup>	1 <sup>3</sup>
Sim Booby-trap Flash	L598	40	8	16	8
Sim Booby-trap Illum	L599	28	5	10	5
Sim Booby-trap Whis	L600	28	5	1	5
Sim Hand Gren	L601	56	10	20	10

Notes:

<sup>1</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit commanders may desire to use more or less pyrotechnics for a particular exercise that what is suggested.

<sup>2</sup> Opposing Force (OPFOR) requirements are included in the above table.

<sup>3</sup> Denotes one kit of 20 simulators.



### 3-6. Small Arms Collective Training

a. Ammunition resources are contained in each weapons qualification resourcing table under paragraphs 3-4.

b. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a rehearsal, dry fire and Multiple Integrated Laser Engagement System (MILES) blank fire iteration.

c. Standards follow:

(1) *Active Duty*: Soldiers will participate in a Section/Platoon LFX to standard annually; participate in a Squad/Section/Platoon/Battery FTX/STX annually; participate in an external evaluation (EXEVAL) to standard annually. Consult appropriate ARTEP-MTP manuals for exact standards.

(2) *National Guard*: Soldiers will participate in a Section/Platoon/Battery STX/FTX every training year; participate in an EXEVAL to standard once every two training years. Consult appropriate ARTEP-MTP manuals for standards. Each table will specify the amount of ammunition per weapon for a collective event. The collective event your unit conducts is based on the commander's Mission Essential Task List (METL) assessment. Blank ammunition is provided to allow for rehearsal/practice training prior to the live-fire event.

### 3-7. Live-Fire Exercise

a. Leaders must know the capabilities of their Soldiers and their weapons. A live-fire exercise (LFX) enables leaders to accomplish this assessment under the most realistic conditions. The LFX is an annual training exercise designed to train units on tactics, techniques, and procedures. The standards of execution and performance measures should be derived from unit collective tasks and battle drills. Examples of collective tasks and battle drills suitable for an LFX would be to defend the Unit Area, Defend March Elements, and any task that involves a reaction to enemy contact. LFXs should combine Army training doctrine and literature (fig 3-1).

b. Live fire training should be developed and executed using the following philosophy:

(1) The live fire area is "nonstandard" - it is not a range. Live-fire exercises are executed as tactical tasks in accordance with an Operations Order and the standards within the applicable ARTEP-MTP manual.

(2) Live-fire exercises should tailor to your unit's METL based on the commander's latest METL assessment.

(3) The focus of training and execution should be determined by the unit commander.

(4) The training should emphasize the employment of organic weapon systems at the unit level. Supporting indirect and combined arms weapon systems should also be incorporated when available.

(5) Units should be provided a realistic threat with a target-rich environment. Each Soldier should have the opportunity to employ his weapon. The LFX should test the ability of the unit's chain of command to control and distribute fires effectively.

c. The LFX should be a culminating exercise of the unit's marksmanship and collective training programs. Training should be accomplished within graduated echelons beginning with individual weapons qualification; individual and team movement techniques; section/squad level actions; and finally culminating at the platoon/detachment/unit level.

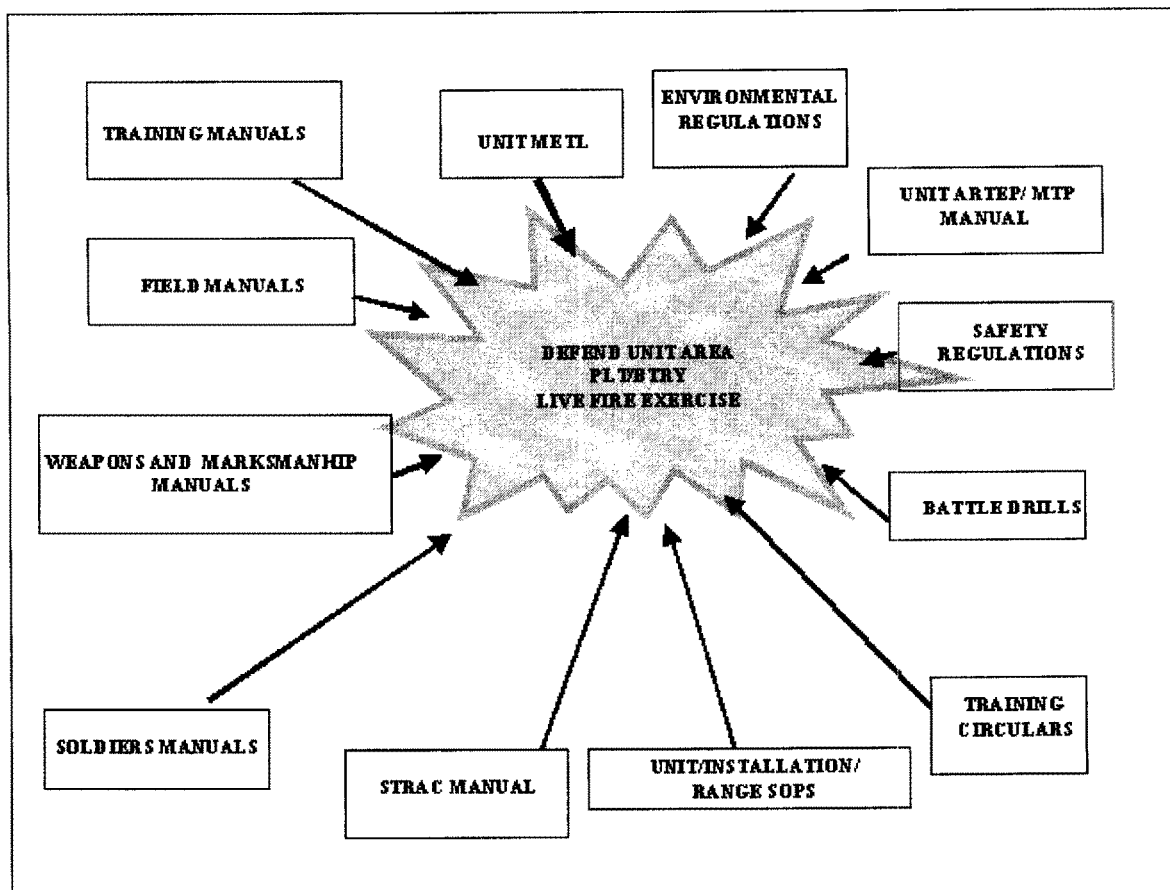


Figure 3-1. LFX Supporting Army Doctrine and Literature

d. A LFX is conducted using the “crawl/walk/run” concept. (see fig 3-2.) The crawl phase should include train-the-trainer actions. Training the leadership of the element conducting the exercise should consist of a TEWT or a tabletop exercise. Immediately following should be a dry fire or walk through with all personnel. The walk phase should familiarize and improve individual and element movement techniques, command and control actions, and safety measures. A “full dress” rehearsal utilizing blank ammunition and MILES should also be included. The run phase is the performance of the task using live ammunition. All three phases should be performed during daylight conditions before conducting them at night. Army Training Circular 7-9, *Infantry Live-Fire Training*, provides the standards and details necessary to plan and execute an LFX.

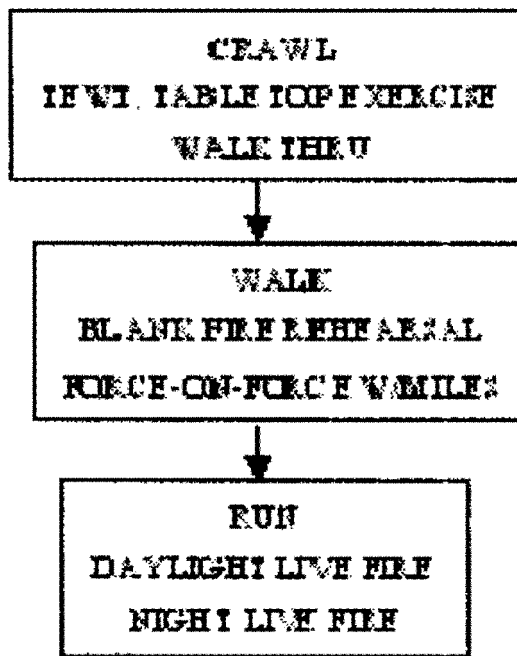


Figure 3–2. Crawl, Walk, Run Methodology

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## Chapter 4 Air Defense Artillery

### 4–1. Description

*a.* This chapter provides weapons standards, training strategies, and resource requirements for units equipped with Avenger, Man Portable Air Defense System (MANPADS)/Stinger, and Patriot ADA weapon systems. This chapter also provides standards and training strategies for all personal/crew-served weapons assigned to an Air Defense Artillery (ADA) unit. These strategies are based on the proponent's input and recommendations. Each weapon's training program includes a standard and strategy that outlines the training sequence while also including suggested frequencies of live fires and use of training devices. It covers strategies from individual to collective.

*b.* The objective of STRAC is to assist commanders in attaining and sustaining standards and weapons proficiency in accordance with their unit makeup, component, and to ensure that combat proficiency and readiness is maintained throughout the force. Weapon system specific training devices should be used to progressively aid individual and collective skill development in garrison, local training areas, and combat training centers. These devices provide higher frequency training opportunities to sustain skill sets in accordance with FM 7–0's sustainment training band. The standard is assessed against the unit's ability to maintain published standards for crew qualification and combat readiness with and without the use of live fire gunnery.

### 4–2. Individual Weapons Training, Requirements and Qualification

This section provides weapon standards, training, and resource requirements for individual and crew-served weapons in ADA units.

*a.* Active Component (AC) TDA units with personnel assigned individual weapons will qualify every six months. National Guard (NG) personnel assigned individual weapons will qualify every 12 months. Consult the appropriate section of this chapter to determine authorized resourcing for qualification. Personnel in any TDA unit who are not assigned individual weapons are exempt from weapon qualification in accordance with Army Regulation (AR) 350–1, paragraph 4–10(5)*d*.

*b.* Training strategies are outlined by unit for each weapon. In some cases, units may find resourcing for equipment not in their TOE. The item is resourced only if the unit MTOE changes to include that particular item of equipment.

*c.* Training requirements outlined in this chapter are based off current FMs, Army Training and Evaluation Program (ARTEP)s, and Training Circulars (TCs). Due to ammunition constraints, the FM recommended training strategy might

not be fully supported. Standards in Training Commission may support only the critical exercises in the FM, TC, or ARTEP.

d. Army Commands (ACOMs) and Army Services Component Commands (ASCCs) are authorized in AR 350–1 to approve the use of prescribed alternate qualification methods and modified or sub caliber qualification courses outlined in the strategies and field manuals when the unit conducting training does not have reasonable access to adequate range facilities. The proponent for the affected weapon must approve all other modifications.

#### 4–3. TADSS

A realistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew-served weapons TADSS information are contained in appendix B.

#### 4–4. Non-Infantry Urban Operations (UO) Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on a commander’s Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO Training Strategy information is contained in appendix C.

#### 4–5. Individual Weapon Qualification Requirements

a. *M9 Automatic Pistol*. Ninety percent AC and eighty percent NG assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3–23.35 every six months for AC or every 12 months for NG for the events listed in table 4–1.

**Table 4–1**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC	Rounds	FREQ	
				AC	NG
Pre Marksmanship Training	TADSS	AA49	0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	7	2	1
CPQC table VII Night Fire <sup>1,2</sup>	Ball/EST	AA49	5	2	1
<b>Total Rounds for Qualification</b>					
Non EST Equipped Units	Ball	AA49		184	92
EST Equipped Units	Ball/EST	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Units equipped with EST will conduct NBC & Night Fire on EST.

#### b. *M16 Rifle/M4 Carbine*.

(1) Primary and Secondary day sight: The primary sight is either the Advanced Combat Optical Gunsight (ACOG) or Iron Sight. If equipped with the Close-Combat Optic (CCO) or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(2) Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 within the past six months with the primary day sight and night sight/aiming light for the events listed in table 4–2. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed in table 4–2. The Army Reserve and Army National Guard (ARNG) will alternate primary and secondary sight qualification every year, if equipped. OCONUS units will request A059 Ball in lieu of AA33. If lead-free is required, request AA45.

(4) Day Requirements without EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day and NBC record course.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(5) Day Requirements with EST 2000:

(a) Iron Sight/BIS: All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(6) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 4-2**  
**M16/M4 Qualification (FM 3-22.9)**

		DODIC		FREQ	
Event	Type	AA33 <sup>3</sup>	A063	AC	NG
Iron Sight (Primary Sight)					
Prel Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
Close Combat Optic (Primary Sight) <sup>2</sup>					
Pre Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Practice	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight <sup>2</sup>					
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36		2	1
Night Field Fire I	Ball	36		2	1
Practice Record	Ball	40		2	1
Record <sup>1</sup>	Ball	40		2	1
Subtotal				304	152
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Ball	18		2	1
IR Night Field Fire I	Ball	36		2	1
IR Practice Record	Ball	40		2	1
IR Record <sup>1</sup>	Ball	40		2	1
Subtotal				268	134

**Table 4–2**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

	Total Rounds		NG w/o EST/w/ EST	
	AC w/o EST/w/ EST			
	AA33 <sup>3</sup>	A063	AA33	A063
Iron Sight Only Qual	356/196	40/0	178/98	20/0
CCO & BIS Qual	454/294	40/0	276/196	20/0
Thermal Weapon Sight	304/304	0/0	152/152	0/0
Infrared	268/268	0/0	134/134	0/0
	Collective Training		FREQ	
	DODIC	Rounds	AC	NG
PLT/btry LFX	A059/A063	130/20	1	0
PLT/btry STX/FTX	A080	40	2	1
EXEVAL	A080	40	1	0.5

Notes:

<sup>1</sup> Indicates Standards.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 ball in lieu of AA33. If lead-free is required, request DODIC AA45.

*c. M203 Grenade Launcher (GL).*

(1) Ninety percent of the AC Soldiers assigned the M203 GL will meet the day qualification standards in FM 3–22.31 every six months for the events listed in table 4–3.

(2) Eighty percent of the NG Soldiers will meet individual day qualification requirements every 12 months for the events listed in table 4–3.

**Table 4–3**  
**M203 Ammunition Requirements (FM 3–22.31)**

Event	Type	DODIC	Rounds	FREQ	
				AC	NG
Day Zero	TP		6	2	1
Day Qualification	TP		15	2	1
<b>Total Rounds for Qualification</b>					
	TP	B519		42	21
<b>Collective Training</b>					
PLT/btry LFX	TP	B519		4	

*d. M249 Automatic Rifle (AR) Standard.* Primary and secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and if equipped with night vision devices, conduct night qualification in accordance with TC 23–Advanced Infantry Marksmanship Strategies and Standards (AIMSS) within the past six months with the primary day sight and night sight/aiming light for the event listed in table 4–4. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in TC 23–AIMSS every 12 months for the event listed in table 4–4. The USAR and ARNG will alternate primary and secondary sight qualification every year if equipped.

(3) Day Requirements without EST 2000.

(a) Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(b) Machine Gun Optic (MGO): Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

- (4) Day Requirements with EST 2000.
- (a) 10-meter fire is conducted on the EST 2000.
- (b) Transition fire is conducted in accordance with FM 3–22.68.
- (5) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 4–4**  
**M249AR Qualification (FM 3–22.68)**

DODIC			FREQ		
Event	Type	A062	A064	AC	NG
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
Subtotal (A062/A064)					
Units not equipped with EST				216/288	108/144
Units equipped with EST				0/288	0/144
Machine Gun Optic (Primary Sight)					
Pre Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero (MGO) <sup>1</sup>	Ball or EST	6		2	N/A
10m Practice (MGO)	Ball or EST	51		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51		2	N/A
Iron Sight 10m Zero	Ball or EST	6		1	N/A
Iron Sight 10m Practice	Ball or EST	51		1	N/A
Iron Sight 10m Record	Ball or EST	51		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		12	2	N/A
Transition Practice (MGO)	Mix		66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		66	2	N/A
Iron Sight Transition Zero	Mix		12	1	N/A
Iron Sight Transition Prac	Mix		66	1	N/A
Iron Sight Transition Rec	Mix		66	1	N/A
Subtotal (A062/A064)					
Units not equipped with EST				324/432	N/A
Units equipped with EST				0/432	N/A
Firing table III TC 23–AIMSS					
Thermal Weapon Sight					

**Table 4–4**  
**M249AR Qualification (FM 3–22.68)—Continued**

TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1
TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Prac	Mix	66	2	1
TWS Limited Visibility Qual <sup>1</sup>	Mix	66	2	1
Subtotal			468	234
Infrared				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			432	216
Total Rounds				
	AC w/o EST/w/ EST		NG w/o EST/w/ EST	
	A062	A064	A062	A064
Iron Sight Only	216/0	288/288	108/0	144/144
MGO & Iron Sight	324/0	432/432	N/A	N/A
Thermal Weapon Sight	0/0	468/468	0/0	234/234
Infrared	0/0	432/432	0/0	216/216

Notes:

<sup>1</sup> Indicates Standard.

*e. M249 Machine Gun Standard.* Primary and secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Ninety percent of the AC Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light for the events listed in table 4–5. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of the National Guard Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months for the events listed in table 4–5. The ARNG will alternate primary and secondary sight qualification every year if equipped.

(3) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course.

(4) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure.

*f. M60 Machine Gun/M240B Machine Gun Standard.* Primary and secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3–22.68 lists a 7 to 9 round burst. Qualification must be conducted using a 5 to 7 round burst.

(2) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light for the events listed in table 4–5. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months for the events listed in table 4–5. The NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.



(6) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 4–5**  
**M240B and M249 LMG Qualification (FM 3–22.68)**

Event	Type	DODIC		FREQ		NG
		A143/ A062	A131/ A064	AC w/o MGO	AC w/ MGO	
Prel Marksmanship Training	TADSS			4		4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero For Bipod & Tripod <sup>1</sup>	Ball/EST	24	~	2	3	1
10m Practice	Ball/EST	161	~	2	3	1
10m Record <sup>1</sup>	Ball/EST	91	~	2	3	1
<b>Subtotal with EST</b>	<b>Ball</b>			<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal without EST</b>	<b>Ball</b>			<b>552</b>	<b>828</b>	<b>276</b>
<b>Firing table II</b>						
Transition Zero <sup>1</sup>	Mix	~	28	2	3	1
Transition Practice	Mix	~	154	2	3	1
Transition Record <sup>1</sup>	Mix	~	154	2	3	1
<b>Subtotal</b>	<b>Mix</b>			<b>672</b>	<b>1008</b>	<b>336</b>
<b>TWS Qualification</b>						
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	~	36	2		1
TWS Night Field Fire III	Mix	~	154	2		1
TWS Limited Visibility Practice	Mix	~	154	2		1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>				<b>996</b>		<b>498</b>
<b>IR Qualification</b>						
IR Zero <sup>1</sup>	Mix	~	18	2		1
IR Night Field Fire III	Mix	~	154	2		1
IR Practice	Mix	~	154	2		1
IR Qualification <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>	<b>Mix</b>			<b>960</b>		<b>480</b>
<b>Total Rounds</b>						
		AC		NG		
		A143/ A062	A131/ A064	A143/ A062	A131/ A064	
Primary Sight Qual w/EST		0	672	0	336	
Primary Sight Qual wo/EST		552	672	276	336	
MGO & Iron Sight Qual wo/EST		828	1008			
MGO & Iron Sight Qual w/EST		0	1008			
TWS Qualification		0	996	0	498	
IR Qualification		0	960	0	480	
<b>Collective Training</b>						
		DODIC	Rounds	AC	NG	

**Table 4-5**  
**M240B and M249 LMG Qualification (FM 3-22.68)—Continued**

Event	Type	DODIC			FREQ	
		A143/ A062	A131/ A064	AC w/o MGO	AC w/ MGO	NG
PLT/btry STX/FTX			A111/ A075	300	1	0
EXEVAL			A111/ A075	200	2	1
PLT/btry LFX			A131/ A064	200	1	0.5

Notes:

<sup>1</sup> Indicates Standard.

*g. MK-19 Grenade Machine Gun.*

(1) Ninety percent of the AC Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 and for the events listed in table 4-6 every six months.

(2) Eighty percent of the NG Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 and the events listed in table 4-6 within the past 12 months.

(3) The MK-19 table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3-22.27 to determine which table to utilize and number of rounds to request.

(4) Day requirements: Qualify on Day Qualification table II.

(5) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ-2A and AN/PAS-13 HTWS.

**Table 4-6**  
**MK 19 GMG Qualifications (FM 3-22.27)**

Event	DODIC	Rounds	FREQ	
			AC	NG
Preliminary Marksmanship Training	TADSS		4	4
<b>Day Qualification</b>				
table I Day Practice <sup>1</sup>	B584	62	2	1
table II Day Qualification <sup>1</sup>	B584	62	2	1
<b>Night Qualification</b>				
<b>AN/PEQ-2A</b>				
table III Night Practice	B584	62	2	1
table IV Night Qualification <sup>1</sup>	B584	62	2	1
<b>AN/PAS-13</b>				
table III Night Practice	B584	62	2	1
table IV Night Qualification <sup>1</sup>	B584	62	2	1
<b>Total Rounds for Qualification</b>				
<b>Day Qualification</b>				
table I & II	B584		248	124
<b>Night Qualification</b>				
AN/PEQ-2A	B584		248	124
AN/PAS-13	B584		248	124
PLT/btry LFX <sup>1</sup>	B584		30	

Notes:

<sup>1</sup> Indicates Standards.

*h. M2 .50 cal Machine Gun (MG).*

(1) Ninety percent of the AC Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.65 and the events in table 4–7 every six months.

(2) Eighty percent of the NG Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.65 and the events in table 4–7 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 4–7**  
**M2 .50 cal Qualification (FM 3–22.65)**

Event	Type	DODIC	Rounds	FREQ	
				AC	NG
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Day Qualification</b>					
table IV					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
<b>Subtotal</b>	<b>Mix</b>	<b>A557</b>		<b>560</b>	<b>280</b>
<b>Night Qualification</b>					
<b>AN/PEQ–2A</b>					
Night Zero	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification	Mix	A557	126	2	1
<b>Subtotal</b>	<b>Mix</b>	<b>A557</b>		<b>556</b>	<b>278</b>
<b>AN/PAS–13 HTWS</b>					
Night Zero (NFOV & WFOV)	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification	Mix	A557	126	2	1
<b>Subtotal</b>	<b>Mix</b>	<b>A557</b>		<b>576</b>	<b>288</b>
<b>Total Rounds for Qualification</b>					
<b>Day Qualification</b>					
table I & II	Mix	A557		560	280
<b>Night Qualification</b>					
AN/PEQ–2A Qualification	Mix	A557		556	278
AN/PAS–13 HTWS Qualification	Mix	A557		576	288
<b>Collective Training</b>					
PLT/btry LFX <sup>1</sup>	Mix	A557	100	1	0
PLT/btry STX/FTX <sup>1</sup>	Blank	A598	100	2	1
EXEVAL <sup>1</sup>	Blank	A598	100	1	.5

Notes:

<sup>1</sup> Indicates Standard.

*i. M1200 Shotgun Standard.*

(1) Ninety percent of the AC Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months for the events listed in table 4–8. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of the National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months for the events listed in table 4–8.

**Table 4–8**  
**M1200 Qualification (STP 19–95C1–SM)**

Event	Type	DODIC	Rounds	FREQ	
				AC	NG
Preliminary Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A011	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2	1
<b>Total Rounds for Qualification</b>					
Total	Buckshot	A011		26	13

Notes:  
<sup>1</sup> Indicates Standard.

*j. Hand Grenade Qualification Standard.* Live grenade throw is not required for qualification. Mock Bay training is required for the live hand grenade throw in accordance with FM 3–23.30.

(1) Active Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 within the past year and throw a live grenade within the past 24 months for the events listed in table 4–9.

(2) National Guard Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 within the past training year and throw a live grenade once every two training years.

**Table 4–9**  
**Hand Grenade (FM 3–23.30)**

Event	DODIC	Rounds	FREQ	
			AC	NG
Mock Bay	N/A	2	0.5 <sup>2</sup>	0.5 <sup>2</sup>
Hand Grenade Qualification Course <sup>1</sup>	G878	6	1	1
Total For Qualification	G878		7	7
Live Grenade Throw	G881	1	0.5 <sup>2</sup>	0.5 <sup>2</sup>

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

*k. Claymore Mine.* Qualification requirements: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every six months for the events listed in table 4–10.

**Table 4–10**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	DODIC	FREQ	
			AC	NG
Employment Instruction/Qualification	Inert	K139	1	1
No rounds required for qualification				

*l. CS Chamber Strategy* (see table 4–11).

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers CS Chamber assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 4–11**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	FREQ	
			AC	RC
CS Chamber	K765	1 per 10 Soldiers	1	1
Prime Chamber	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

*m. Pyrotechnics for ADA Units.*

(1) This paragraph provides the annual pyrotechnic training requirements for ADA units listed below. These tables provide the total training requirements and notional training strategies by type unit.

(2) The objective of this section is to assist ammunition managers in forecasting pyrotechnic requirements and to provide guidance for the unit trainer in the suggested authorization of pyrotechnics.

(3) Existing ARTEPs and Mission Training Plans (MTPs) were considered in the development of the following pyrotechnic requirements. Units were grouped according to like-type training missions and the intensity of field training in which they would be expected to participate.

(4) Units are resourced as shown in the following tables to support field exercises at different unit makeup levels. Commanders may desire to use more or less pyrotechnics than what is indicated for a particular level of exercise. However, the total annual requirement that a unit may receive, as shown in the far right column, will not be exceeded during the 12 month period.

(5) Headquarters are to be considered in the total battalion allocation as are OPFOR requirements and any attachments. Pyrotechnic requirements for NTC have been resourced separately and are not a part of the unit's annual requirements as provided herein. Specialized pyrotechnics such as Hoffman charges and Antitank Weapon Effects Signature Simulator (ATWESS) charges are listed with the weapon system to which they pertain and can be found with the appropriate weapon system in this chapter.

(6) Pyrotechnic requirements/allocations are listed in table 4–12. In order to calculate pyrotechnic requirements for the year, the unit identifies its unit type and enters the appropriate table. Separate batteries are considered as those who are not a part of a TOE battalion or are required to separate in an isolated manner due to geographical location. Requirements shown in the far right column of the table are the total annual requirements for the battalion or separate battery. Unit trainers must subdivide these resources among their subordinate units as the training situation dictates.

**Table 4–12**  
**Individual/Crew Served Weapons (Pyrotechnics) <sup>1, 2</sup>**

Pyrotechnics	DODIC	AC	NG
HG Smoke GRN	G940	16	4
HG Smoke YEL	G945	48	18
HG Smoke RED	G950	36	18
HG Smoke VIOL	G955	28	10
HG Smoke CS	G963	28	10
HG Smoke HC	G982	48	18
Smoke Pot, Practice M8	K511	20	0
SIG Illum GRN Para	L305	8	2
SIG Illum RED Para	L306	28	10
SIG Illum WH Para	L307	20	8
SIG Illum RED Star	L311	8	2
SIG Illum WH Star	L312	20	8
SIG Illum GRN Star	L314	20	8
Flare Surface Trip	L495	28	10
SIM Proj Grnd Brst	L594	104	29

**Table 4-12**  
**Individual/Crew Served Weapons (Pyrotechnics) <sup>1, 2</sup>—Continued**

SIM Proj Airburst (SPAL) <sup>3</sup>	L595	2	0
SIM Boobytrap Flash	L598	40	16
SIM Boobytrap Illum	L599	28	10
SIM Boobytrap Whis	L600	28	10
SIM HG	L601	56	20
<b>ADASeparate Btry</b>			
HG Smoke GRN	G940	2	2
HG Smoke YEL	G945	11	9
HG Smoke RED	G950	10	10
HG Smoke VIOL	G955	5	5
HG Smoke CS	G963	5	5
HG Smoke HC	G982	9	9
Smoke Pot, Practice M8	K511	4	4
SIG Illum GRN Para	L305	1	1
SIG Illum RED Para	L306	5	5
SIG Illum WH Para	L307	4	4
SIG Illum RED Star	L311	1	1
SIG Illum WH Star	L312	4	4
SIG Illum GRN Star	L314	4	4
Flare Surface Trip	L495	5	5
SIM Proj Grnd Brst	L594	18	18
SIM Proj Airburst (SPAL)	L595	0	0
SIM Boobytrap Flash	L598	8	8
SIM Boobytrap Illum	L599	5	5
SIM Boobytrap Whis	L600	5	5
SIM HG	L601	10	10

Notes:

<sup>1</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit commanders may desire to use more or less pyrotechnics for a particular exercise than what is suggested. However, units cannot exceed their annual authorization.

<sup>2</sup> OPFOR requirements are included in the above table.

<sup>3</sup> Denotes one kit of 20 simulators.

#### 4-6. ADA Proponent Strategies

This section provides weapons standards, training strategies, training devices, and resource requirements for Corps and Echelons above Corp ADA Brigades/Battalions and National Guard ADA Brigades/Battalions equipped with Avenger, MANPADS (Stinger), and PATRIOT weapon systems.

#### 4-7. Training Aid, Devices, Simulations and Simulators

Historically, ADA relied on extensive use of actual equipment and full-caliber ammunition to train crews, sections, and platoons. Fiscal constraints combined with escalating ammunition costs have given way to technological advancements in training devices and simulators providing additional and less costly opportunities for gunnery training. Air Defense training strategies have incorporated these technological advances and now combine full-caliber ammunition live fires with device and simulator training programs. Commanders must integrate TADSS into training strategies to train events that are resourced.

*a. Remotely Piloted Vehicle Target System (RPVTS).* The RPVTS is a low altitude, relatively low cost target that is flown at altitudes up to 2000 ft Above Ground Level (AGL). The RPVTS is controlled by one of two methods; (1) visual line-of-sight means using a radio frequency, hand-held remote; (2) Beyond Visual Range (BVR) which utilizes an autopilot system. It is a highly maneuverable aerial target capable of executing multiple attack profiles. It may be used to support Avenger, and MANPADS/Stinger crew gunnery and live-fire training missions. Various ancillary

payloads are added to the target to provide system versatility: Multiple Integrated Laser Engagement System (MILES); Precision Gunnery System (PGS) reflectors; Infrared (IR) Signature for missile engagements; and Scaler Scoring Device (Bullet Counter). The RPVTS is contractor operated and support scheduling is available through the Targets Management Office (TMO) of Program Executive Office Simulation, Training and Instrumentation (PEO STRI) only. Scheduling is accomplished through the ACOM G-3s.

b. *Infrared Towed Target (IRTT)*. The IRTT is a high speed, subsonic, large size, low drag, low cost, infrared, aerial towed (by the MQM 107 Streaker) target that supports Air Defense infrared missile systems such as Avenger and MANPADS/Stinger.

c. *Multiple Integrated Laser Engagement System/Air-to-Ground Engagement System/Air Defense (MILES/AGES/AD)*. The MILES/AGES/AD is available through local Training Support Centers (TSC). This training device provides a realistic training environment with real time hit/kill feedback for Avenger, and MANPADS/Stinger weapon systems. The system duplicates all engagement tasks through the use of laser firings. MILES is an approved eye-safe training device.

d. *M67 Captive Flight Trainer (CFT)*. The CFT is a missile simulator used to train and/or qualify the Avenger gunner's tracking and engagement skills. The CFT is used in conjunction with 1/5th scale RPVTS targets and live targets to train and/or qualify engagement procedures. The CFT consists of a Stinger-Remotely Programmable missile guidance assembly, a ballast launch tube, and a container. The seeker and audio interface is the same as for the tactical missile, with electrical power and coolant provided through normal launcher sources.

e. *M60 Field Handling Trainer (FHT)*. The FHT is TOE equipment with the same size, weight, and external appearance as the Stinger weapon round. Soldiers use the FHT to practice the basic manual skills of weapon handling, operation, sighting, and ranging. The FHT also allows the gunner to practice mating and removing the grip stock, inserting and removing the battery coolant unit (BCU), and visually tracking aerial targets.

f. *M160 Remotely Programmable Tracking Head Trainer (THT)*. The Stinger training set M160 is used to train the Stinger gunners in all tasks required for engagement of aircraft. THT replicates the size, weight, and appearance of a tactical Stinger weapon round. The M160 Remotely Programmable THT provides training in improved IR/UV detection and has an improved performance indicator assembly to evaluate gunner performance.

g. *Stinger Troop Proficiency Trainer (TPT)*. The TPT is a computer-based training device that superimposes one or more independently moving aerial target images and terrain backgrounds onto the optical sight of Stinger weapon system. It provides the MANPADS/Stinger gunner with a visual representation of a realistic battlefield environment. TPT is used for both sustainment training and qualification.

h. *Avenger table Top Trainer (TTT)*. The Avenger TTT is a computer-based training device consisting of a gunner's hand station, computer processor and a video display monitor. The trainer displays terrain and moving aircraft, allowing Avenger teams to track and engage aircraft with minimal training cost to the unit. It provides the Avenger gunner with a visual representation of a realistic battlefield environment. The Avenger TTT is used to sustain Avenger crew members in engagement (alert/cue, search, detect, acquire, identify, track, engage) training scenarios.

i. *Avenger Institutional Conduct of Fire Trainer (ICOFT) / Unit Conduct of Fire Trainer (UCOFT)*. Avenger ICOFT/UCOFT is a simulator that develops Avenger gunner skills in search, acquisition, and engagement of hostile aircraft. The ICOFT trainer consists of six student stations and one instructor console. Each student station acts independently of each other, consequently, the same scenario can be sent to each student station or different scenarios can be sent with scenarios running at different points in time. The Instructor Station enables the instructor to initialize and control from one to six Student Stations acting independently or as a platoon.

j. *Identification Friend/Foe (IFF) Subsystem Training Set*. This set evaluates gunner responses to simulated IFF tones. The set is available at platoon headquarters and consists of an interrogator simulator, simulator case, and the Stinger shipping/storage container. This item is used in place of the tactical interrogator for training purposes and is capable of producing three operating tones to the Stinger gunners.

k. *Scoring Augmentation*. Scoring augmentation is available for installation on the MQM 107 IR towed target (IRTT), MQM 107 aerial gunnery towed target, MQM 107 towed banner, and RPVTSs. Immediate feedback of scoring data is available by detecting and counting bullet's miss distance indications that penetrate a predetermined RF field around the target. After Action Review (AAR) reports are generated by the support contractor and provided to the unit immediately after completion of the mission. Scoring is contractor operated and support scheduling is available from Simulation, Training and Instrumentation Command (STRICOM) only.

l. *Thru-Sight Video (TSV)*. A vehicle-appended system that provides video and audio recording of gunnery or tactical engagement exercises in real time. It is used for vehicle gunnery training to provide an evaluation and critique of actual engagement sequences. The TSV system is transparent to the crew. It provides an immediate playback capability through the use of an onboard monitor. The system also contains an after action review subsystem that allows evaluators to play back, freeze, and zoom on individual engagements.

m. *Ballistic Aerial Target System*. Ballistic Aerial Target Systems are a low-cost target for ADA weapon systems. It may be flown at low and medium altitudes and at speeds from 275 to 550 knots (140 to 285 meters per second). It is troop operated and may be maintained with minimum training. It is highly mobile and provides a reliable standby

target for Air Missile Defense (AMD) systems such as Avenger Stinger-MANPADS. Ballistic Aerial Target Systems are not suitable for gun systems.

n. *Patriot Troop Proficiency Trainer (TPT)*. The TPT is a software program used to train Information and Coordination Center (ICC) and Engagement Control Systems (ECS) operators. It is also used to evaluate and maintain proficiency levels of current operators. TPT can be programmed for battalion/battery exercise training.

o. *Patriot Live Aircraft Trainer (LAT)*. The LAT is a version of the tactical software modified to track live targets and simulate their engagement.

p. *Patriot Conduct of Fire Trainer (PCOFT)*. The PCOFT simulates the Patriot system displays, controls, communications, and data processing systems at the operator and supervisory personnel positions of the Engagement Control Station and the Information and Coordination Center.

q. *Patriot Missile Round Trainer (MRT)*. The MRT is a training device that duplicates the external physical features of the missile canister and electronic characteristics of the guided missile. It consists of a canister with ballast permanently secured inside, which approximates the tactical guided missile's weight and center of gravity. It enables transportation; handling, and load/unload training without the hazards of handling live explosives.

r. *TRX-4A Radar Tow Target*. A high speed, subsonic, low drag, low cost, radar aerial target that is towed by the MQM 107 Streaker. Wing mounted and launched from the MQM 107, the TRX-4A is used for radar systems such as Patriot.

s. *Tactical Ballistic Missile Training Target*. The Excalibur target system is used to exercise state-of-the-art radar systems and evaluate air defense weapon systems at an affordable cost. The Excalibur target provides accurate replication of ballistic missile threats. The on-board RF Signature Augmentation system can be tailored to reflect cross sections of various hostile ballistic missile threats.

t. *MQM 107 Streaker Training Target*. The Streaker is a reusable turbojet-powered fixed-wing, subscale aerial target. It may be configured to provide training for all ADA weapon systems through the use of mission tailored ancillary equipment and augmentation and radar reflectors. The relatively high cost Streaker system is government owned and contractor operated and may be set up at most ranges where ADA weapons are fired.

u. *PATRIOT-as-a-Target*. The PATRIOT-as-a-Target is a modified PATRIOT missile simulating a short-range, full-body theater ballistic missile. It provides a low-cost surrogate ballistic missile threat to test system performance against multiple threats.

v. *Flight Mission Simulator (FMS) /Digital*. The FMS/Digital is a real time digital computer based simulator of the PATRIOT Radar set, Launching Station, and associated missiles. FMS/Digital interfaces with a tactical PATRIOT ECS to allow simulated tactical operations of the PATRIOT system. FMS/Digital utilizes the Distributed Interactive Simulation protocol to receive the flight paths and operations of simulated targets, which can be simultaneously observed by simulators of other elements of air defense. A time synchronized simulated common environment is created and disseminated to the geographically distributed driver segments such as FMS/Digital. In response to the simulated environment, each driver segment provides simulated sensor outputs to mission data processors located in tactical hardware. This concept enables test of the interactions, or interoperability, of tactical missile defense systems using a great degree of actual tactical "hardware-in-the-loop". The interoperability performance of the netted air defense system can thus be evaluated using these simulators and the tactical air defense hardware.

#### **4-8. ADA Collective Training**

Collective training requirements and ammunition resources are contained in the weapon qualification resourcing tables under the collective training heading. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a rehearsal, dry fire and MILES blank fire iteration.

a. Collective training by component.

(1) Active Duty: Soldiers will participate in a Squad/Section/Platoon/Battery LFX to standard every 12 months; participate in a Squad/Section/Platoon/Battery FTX/STX every six months; participate in an external evaluation (EXEVAL) to standard every 12 months. Consult appropriate ARTEP/MTP manuals for exact standards. LFX should be tailored to your units METL based on the commanders latest METL assessment.

(2) National Guard: Soldiers will participate in a Squad/Section/Platoon/Battery STX/FTX once every 12 months; participate in an external evaluation (EXEVAL) to standard once every 24 months. Consult appropriate ARTEP/MTP manuals for standards.

b. Each table will specify the amount of ammunition per weapon for a collective event. The collective event frequency is stated above. The collective event your unit conducts is based on the commander's METL assessment. Blank ammunition is provided to allow for rehearsal/practice training prior to the live fire event.

#### **4-9. Avenger / MANPADS ADA Battalions Active or National Guard**

a. *Avenger Standards*.

(1) Avenger Training tables are specified in ARTEP 44-117-22-MTP, appendix A. Every six months for AC or every 12 months for NG, all Avenger teams must conduct Avenger Training table III (Crew Member Certification), Avenger Training table VI (Battle/Crew Drill Certification), and Avenger Training table VII (Team Pre-Qualification)



prior to proceeding to Avenger Training table VIII (Team Qualification). All assigned Avenger teams (team leader and gunner) must successfully meet the standards for Training table VII prior to executing Training table VIII. Ninety percent AC or eighty percent NG of all assigned Avenger teams (team leader and gunner) should be Training table VIII qualified. To be qualified Training table VIII each team must correctly engage five out of six hostile aerial targets using the Remotely Piloted Vehicle Target System (RPVTS). The six aerial engagements consist of five Captive Flight Trainer (CFT) and one M3P MG. Additionally, Training table VIII requires the successful engagement of three out of four ground targets using the M3P MG every six months. The engagements for the CFT and the M3P MG are contained in table 4-13. The annual ammunition requirements for the M3P MG are contained in table 4-14. Avenger TTT will be used for sustainment training and to prepare for qualification.

(2) The Avenger team will fire ten of the thirteen engagement presentations listed in table 4-13. The 10 engagements must consist of five aerial engagements with the Captive Flight Trainer and five M3P MG engagements (one of the ten engagements will be under NBC conditions). The five M3P MG engagements consist of four ground and one aerial. The Avenger team leader will perform four of the ten engagements from the RCU. The four-team leader engagements consist of two aerial engagements with the CFT and two ground engagements with the M3P MG. The Avenger gunner will perform six of the ten engagements from inside the turret. The six gunner engagements consist of four aerial engagements and two ground engagements. The two ground engagements are with the M3P MG. The four aerial engagements consist of three CFT engagements and one M3P MG engagement. The unit commander may decide which ten of the thirteen engagements the Avenger teams perform in accordance with the guidelines in the Avenger Training tables. Each Avenger team will fire twenty-five rounds per M3P MG engagement. Each Avenger team will use fifty rounds to adjust or set the cycle rate of fire on the M3P MG from the rounds allocated per Practice/Qualification tables and LFX in accordance with table 4-14 and the Avenger Training tables in ARTEP 44-117-22-MTP, appendix A. Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles CFT and M3P MG live fire. Scoring is required for CFT and M3P live fire engagements. If scoring devices are not available, a subject matter expert must provide the assessment. Units will use available ground targets. Targets are considered suppressed with the M3P MG when the target area has been hit.

(3) Training table IX (Platoon Operations Evaluation). Training table IX and X will be conducted annually for AC or during the training year for NG. The activities will be evaluated based upon principles of air defense employment contained in ARTEP 44-117-22-MTP. Upon completion of activities, the platoon leader and platoon sergeant consolidate data, access platoon tactical plans, validate the platoon's defense, and conduct an AAR for platoon members. This training event may encompass more than one training day. Training table X, LFX (Annual Service Practice), When the Missile Distribution Plan (MIDP) allocates Stinger Missiles; aerial targets will be provided for one out of every four crews/teams (commander-selected) once a year to track, engage, and fire with live Stinger training missiles on table X. All other teams/crews will track and engage with the CFT, and ground targets with the M3P MG.

(4) Ninety percent AC or eighty percent NG of all teams must have met the standards in all drills, as specified in ARTEP 44-117-22-DRILL, every three months and receive a Trained (T) on related collective tasks, as specified in ARTEP 44-117-22-MTP, chapter 5. Avenger Training tables are specified in ARTEP 44-117-22-MTP, appendix A.

*b. Avenger Training strategy.* Team and unit training strategies are given in tables 4-13. The total annual ATWESS cartridge requirements for Avenger are 50 cartridges per team. Recommended usage is ten cartridges per team per LFX and battery level or higher-level FTX. CFT and M3P MG engagements are contained in table 4-14. M3P MG ammunition requirement is in table 4-15. M3P MG (engagement strategy) is in ARTEP 44-117-22-MTP. Coordinate with MACOM G-3 Office, for RPVTS support. \*Note: The RPVTS or its equivalent target is required to support the following tasks:

(1) Stinger Missiles allocated to all ACOMs and ASCCs under the Training Ammunition Management Information System (TAMIS) annually.

(2) Stinger Reliability Assessment Flight Test (RAFT) programs.

(3) The qualification of Avenger gunners using the Captive Flight Trainer (CFT) on the Avenger system.

(4) The Avenger M3P MG engagements.

**Table 4–13**  
**Avenger Training Strategy**

Event	LEVEL	Equipment	FREQ		DODIC	
			AC	NG	L367	PL90/PL93
Battle Drills <sup>1,2</sup>	SEC/TM	Tactical Equipment, CFT, FHT	24	12		
Tracking Practice <sup>1,2</sup>	SEC/TM	Tactical Equipment, Avenger TTT, Stinger TPT, CFT	24	12		
FTX <sup>3</sup>	PLT.		4	1	0	0
	Btry		4	1	20	0
	BN		2	1	20	0
LFX <sup>4</sup>	SEC		1	1	10	1 <sup>4</sup>

Notes:

<sup>1</sup> Standards are in ARTEP 44–117–22–DRILL.

<sup>2</sup> Units will use the RPVTS or its equivalent for team qualification using Captive Flight Trainer (CFT).

<sup>3</sup> One FTX will be externally evaluated per ARTEP 44–117–35–MTP, ARTEP 44–117–22–MTP, and unit METL.

<sup>4</sup> Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles and the M3P live fire. Scoring is required for M3P live fire; if scoring devices are not available a subject matter expert must provide the assessment. Selected (one out of every four) crews will fire a live Stinger missile “when available.”

**Table 4–14**  
**Avenger M3P MG Practice<sup>1</sup>/Qualification<sup>1</sup>/LFX Engagements**

Eng	Target	Course	Rng KM	Standards	DODIC	
					A557	CFT
1	Ground	Static	.4-.6K	Hit target	25	0
2	Ground	Static	.6-.9K	Hit target	25	0
3	Ground	Moving or static	.4-.6K	Suppress RPG-team	25	0
4	Ground	Moving or static	.6-.9K	Hit target	25	0
5	Aerial	Pop-up helicopter	.4-.6K	Hit target	25	0
6	Aerial	Crossing, diving, inbound	.2-.8K	Hit target	25	0
7	Aerial	Climbing and crossing	.2-.8K	Destroy target	0	1
8	Aerial	Crossing, inbound	.2-.8K	Destroy target	25	1
9	Aerial	Crossing level	.2-.8K	Destroy target	0	1
10	Aerial	Crossing, outbound	.2-.8K	Destroy target	0	1
11	Aerial	Crossing, diving	.2-.8K	Hit target	25	0
12	Aerial	Incoming	.2-.8K	Destroy target	0	1
13	Aerial	Incoming, pop-up helicopter, NBC	.4-.6K	Hit target	25	0

Notes:

<sup>1</sup> Units will fire once every six months (AC) or once every 12 months (NG).

**Table 4–15**  
**Ammunition Requirements with Training Strategy for Avenger M3P MG**

Engagements	Rounds Per						DODIC
	Prac <sup>1,3</sup> table VII		Qual <sup>1,3</sup> table VIII		LFX <sup>3,4</sup> table X		
	SL	G	SL	G	SL	G	
1 <sup>2,3</sup>	25		50		75		A557
2 <sup>2,3</sup>	25		50		75		A557
3 <sup>2,3</sup>		25		50		75	A557
4 <sup>2,3</sup>		25		50		75	A557
5 <sup>2,3</sup>		50		50		75	A557
6 <sup>4</sup>	CFT		CFT				
7 <sup>4</sup>	CFT		CFT				
8 <sup>4</sup>		CFT		CFT			
9 <sup>4</sup>		CFT		CFT			
10 <sup>4</sup>		CFT		CFT			
Cycle Rate of Fire		50		50		100	A557
Collective Training							
Btry FTX							20 L367
BN ARTEP		150		150			A598
							20 L367
LFX <sup>3,4</sup>							10 L367
							1 <sup>3,4</sup> PL90/PL93
Total Per Avenger							
Semi-annual							
Mix	50	150	100	200			A557
Blanks		75		75			A598
Annual Total							
Mix	100	300	200	400	150	325	A557
ATWESS							50 L367
Stinger Missile							1 <sup>3,4</sup> PL90/ PL93
Blank		150		150			A598
Total Rounds per Avenger: 1475 Mix/300 Blank/50 ATWESS/1 Stinger missile <sup>4</sup>							

Notes:

<sup>1</sup> Units will fire twice annually or twice per training year (NG). Avenger Gunnery tables VII, VIII and LFX, ARTEP 44–117–22–MTP, appendix A.

<sup>2</sup> Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles and M3P live fire. Scoring is required for M3P live fire; if scoring devices are not available a subject matter expert must provide the scoring.

<sup>3</sup> Captive Flight Trainer (CFT) and the RPVTS, or its equivalent aerial target, is required for this engagement.

<sup>4</sup> One team will fire a live Stinger training missile (when available) while all other available section members track with CFT. Allocation: one missile per four crews per year (AC), or one missile per four crews per training year (NG), when available.

*c. MANPADS (Stinger) Standard*

(1) Stinger Gunnery tables are specified in ARTEP 44–117–11–MTP, appendix A. All MANPADS teams will conduct Stinger Gunnery table III (Crew Member Certification), Stinger Gunnery table VI (Battle/Crew Drill Certification), and Stinger Gunnery table VII (Team Pre-Qualification) prior to proceeding to Stinger Gunnery table VIII (Team Qualification). All assigned MANPADS teams (team leader and gunner) should successfully meet the standards for Training table VII prior to executing Training table VIII. Ninety percent of AC and seventy percent of NG assigned MANPADS teams (team leader and gunner) should be Training table VIII qualified. To be qualified Training table VIII, each MANPADS team (team leader and gunner) will correctly engage four out of five hostile target presentations

using the Stinger Troop Proficiency Trainer (TPT) every six months. Stinger TPT will be used for both sustainment training and qualification.

(2) Ninety percent AC of all teams assigned must train to standard in all drills, as specified in Stinger Drills, ARTEP 44-117-11-DRILL, every three months and receive a Trained (T) on related collective tasks as specified in ARTEP 44-117-11-MTP, chapter 5. Seventy percent (NG) of all teams assigned must train to standard in all drills, as specified in Stinger Drills, ARTEP 44-117-11-DRILL, every six months and receive a Trained (T) on related collective tasks as specified in ARTEP 44-117-11-MTP, chapter 5. Stinger Gunnery tables are specified in ARTEP 44-117-11-MTP, appendix A.

*d. MANPADS Training strategy.* Team and unit training strategies are given in table 4-16. The total annual ATWESS cartridge requirements for Stinger are 50 (30 NG) cartridges per team. Recommended usage is ten cartridges per team per LFX and battery level or higher-level FTX. table IX and X will be conducted every 12 months for AC or every 24 months for NG.

**Table 4-16**  
**MANPADS Training Strategy**

Event	Level	FREQ		How	DODIC			
		AC	NG		AC L367	NG L367	AC PL90/PL93	NG PL90/PL93
Battle Drills <sup>1,2,4</sup>	SEC/TM	24	12	M60 FHT				
Tracking Practice <sup>1,2,4</sup>	SEC/TM	24	12	M160 Remotely Programmable THT/ Stinger TPT				
FTX <sup>3</sup>	SEC/TM	4	1		0	0	0	0
	PLT	4	1		0	0	0	0
	btry	2	1		15	10	0	0
	BN	2	1		15	10	0	0
LFX <sup>4,5</sup>	SEC	1	1		10	10	<sup>14,5</sup>	<sup>14,5</sup>
CALFEX	PLT	1	0		10	0	0	0

Notes:

<sup>1</sup> Standards are in ARTEP 44-117-11-DRILL.

<sup>2</sup> Units will use the Stinger Troop Proficiency Trainer (TPT) for Training table VIII qualification.

<sup>3</sup> One FTX will be externally evaluated per ARTEP 44-177-35-MTP, ARTEP 44-117-11-MTP, and unit METL. Commanders have the prerogative to mix events.

<sup>4</sup> Selected teams (One out of every four teams) will fire live Stinger training missiles (when available) while all other available section members will track and engage with the Tracking Head Trainer (THT).

<sup>5</sup> Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles live fire.

#### 4-10. Patriot/Avenger ADA Brigades and Battalions (P/A)

##### *a. Patriot Standards.*

(1) All assigned crews will train to standard in either ARTEP 44-635-MTP (Patriot Battery Air and Missile Defense Battalion) or FM 3-01.86 and ARTEP drills (ARTEP 44-635-11-DRILL (EPP/AMG), ARTEP 44-635-12-DRILL (ICC/EPU II/CRG), ARTEP 44-635-13-DRILL (ECS/RS), and ARTEP 44-635-14-DRILL (LS/Missile Reload).

(2) Seventy-five percent (AC) of all TCO/TCA (battery) or TD/TDA (battalion) battle crews assigned must qualify in the Air Battle Management qualifications (Troop Proficiency Trainer (TPT), Crew Drill, Heavy Raid Scenario, Point and Area Defense against ABTs and TBMs) with an eighty percent (80 percent) or better asset protection, as measured by the computer and Subject Matter Experts (SMEs) every 12 months. The Launcher Platoon must qualify two Missile Reload crews every 12 months.

(3) Each firing battery must qualify in the Patriot March Order and Emplacement crew drills in accordance with ARTEP 44-635-11-DRILL (EPP/AMG), ARTEP 44-635-13-DRILL (ECS/RS), and ARTEP 44-635-14-DRILL (LS/Missile Reload) every 12 months. The Headquarters and Headquarters Battery must qualify in the Patriot March Order and Emplacement crew drill in accordance with ARTEP 44-635-12-DRILL (ICC/EPU II/CRG) every 12 months.

##### *b. PATRIOT Training Strategy.*

(1) The Combined Arms Training Strategy (CATS) for Patriot is outlined in ARTEP 44-635-MTP (Patriot Battery Air and Missile Defense Battalion) and FM 3-01.86 (Patriot Gunnery Program).

(2) Crew training strategy is provided in table 4-17 (AC). Unit training strategy is provided in table 4-18 (AC).

(3) Ammunition requirement is based on total system validation with one missile per battery, every two years “when available.”

**Table 4–17**  
**Patriot Crew Training Strategy**

Event	CATS table	FREQ	How
Air Battle Training	table III	104	Tactical Equipment/Training Devices/Classroom
	table V <sup>1</sup>	22	TPT or PCOFT
	table VII <sup>1</sup>	22	TPT or PCOFT
	table IX	8	Tactical Equipment
Crew Drills	table II <sup>1</sup>	104	Tactical Equipment
	table VI <sup>1</sup>	40	Tactical Equipment
	table VII <sup>1</sup>	18	Tactical Equipment
	table X	14	Tactical Equipment
	table XI	6	Tactical Equipment
Missile Reload Crew Drill	table V	21	Tactical Equipment/ MRT
	table IV	7	Tactical Equipment/ MRT

Notes:

<sup>1</sup> Refer to Patriot Gunnery program in FM 3–01.86 and ARTEP 44–635–MTP (Patriot Battery Air and Missile Defense Battalion).

**Table 4–18**  
**Patriot Unit Training Strategy**

Event	FREQ	Level	DODIC
TEWT	4	Battalion	
MAPEX	4	Battery	
ADX	4	Battalion	
CPX	4	Battalion	
STX	4	Battery/Battalion	
DEPEX	2	Battalion	
FTX	6	Battery	
	2 <sup>3</sup>	Battalion	
EXEVAL	1 <sup>1</sup>	Battery	
	1 <sup>1</sup>	Battalion	
CTX	1	Battalion	
LFX <sup>2</sup>	1	Battery <sup>2</sup>	PA49

Notes:

<sup>1</sup> May be conducted in lieu of FTX.

<sup>2</sup> As a minimum, each battery fires a missile once every two (2) years.

<sup>3</sup> A Battalion FTX may be substituted with one (1) or two (2) Battery FTXs for a possible total of eight (8) Battery FTXs.

### *c. Avenger Standards.*

(1) Avenger Training tables are specified in ARTEP 44–117–22–MTP, appendix A. Every six months (AC) all Avenger teams must conduct Avenger Training table III (Crew Member Certification), Avenger Training table VI, (Battle/Crew Drill Certification), and Avenger Training table VII (Team Pre-Qualification) prior to proceeding to Avenger Training table VIII (Team Qualification). All assigned Avenger teams (team leader and gunner) must successfully meet the standards for Training table VII prior to executing Training table VIII. Ninety percent (AC) or eighty percent (NG) of all assigned Avenger teams (team leader and gunner) should be Training table VIII qualified.

To be qualified Training table VIII each team must correctly engage five out of six hostile aerial targets using the Remotely Piloted Vehicle Target System (RPVTS). The six aerial engagements consist of five Captive Flight Trainer (CFT) and one M3P MG. Additionally, Training table VIII requires the successful engagement of three out of four ground targets using the M3P MG every six months. The engagements for the CFT and the M3P MG are contained in table 4–20. The annual ammunition requirements for the M3P MG are contained in table 4–21. Avenger TTT will be used for sustainment training and to prepare for qualification.

(2) The Avenger team will fire ten of the thirteen engagement presentations listed in table 4–20. The 10 engagements must consist of five aerial engagements with the Captive Flight Trainer and five M3P MG engagements. One of the ten engagements will be under NBC conditions. The five M3P MG engagements consist of four ground and one aerial. The Avenger team leader will perform four of the ten engagements from the RCU. The four-team leader engagements consist of two aerial engagements with the CFT and two ground engagements with the M3P MG. The Avenger gunner will perform six of the ten engagements from inside the turret. The six gunner engagements consist of four aerial engagements and two ground engagements. The two ground engagements are with the M3P MG. The four aerial engagements consist of three CFT engagements and one M3P MG engagement. The unit commander may decide which ten of the thirteen engagements the Avenger teams perform in accordance with the guidelines in the Avenger Training tables. Each Avenger team will fire twenty-five rounds per M3P MG engagement. Each Avenger team will use fifty rounds to adjust or set the cycle rate of fire on the M3P MG from the rounds allocated per Practice/Qualification tables and LFX in accordance with table 4–20 and the Avenger Training tables in ARTEP 44–117–22–MTP, appendix A. Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles CFT and M3P MG live fire. Scoring is required for CFT and M3P live fire engagements. If scoring devices are not available, a subject matter expert must provide the assessment. Units will use available ground targets. Targets are considered suppressed with the M3P MG when the target area has been hit.

(3) Training table IX (Platoon Operations Evaluation). Training table IX and X will be conducted annually for AC. The activities will be evaluated based upon principles of air defense employment contained in ARTEP 44–117–22–MTP. Upon completion of activities, the platoon leader and platoon sergeant consolidate data, access platoon tactical plans, and validate the platoon's defense and conduct an AAR for platoon members. This training event may encompass more than one training day. Training table X, LFX (Annual Service Practice), when the Missile Distribution Plan (MIDP) allocates Stinger Missiles; aerial targets will be provided for one out of every four crews/teams (commander-selected) once a year to track, engage, and fire with live Stinger training missiles on table X. All other teams / crews will track and engage with the CFT, and ground targets with the M3P MG.

(4) Ninety percent of AC or eighty percent of NG must have met the standards in all drills, as specified in ARTEP 44–117–22–DRILL, every three months and receive a Trained (T) on related collective tasks, as specified in ARTEP 44–117–22–MTP, chapter 5. Avenger Training tables are specified in ARTEP 44–117–22–MTP, appendix A.

*d. Avenger Training strategy.* Team and unit training strategies are given in table 4–19. The total annual ATWESS cartridge requirements for Avenger are 50 cartridges per team. Recommended usage is ten cartridges per team per LFX and battery level or higher-level FTX. CFT and M3P MG engagements are contained in table 4–20. M3P MG ammunition requirement is in table 4–21. M3P MG (engagement strategy) is in ARTEP 44–117–22–MTP. (Coordinate with ACOM G–3 Office, for RPVTS support). \*Note: The RPVTS or its equivalent target is required to support the following tasks:

- (1) Stinger Missiles allocated to all ACOMs and Army Services Component Commands under the Training Ammunition Management Information System (TAMIS) annually.
- (2) Stinger Reliability Assessment Flight Test (RAFT) programs.
- (3) The qualification of Avenger gunners using the Captive Flight Trainer (CFT) on the Avenger system.
- (4) The Avenger M3P MG engagements.

**Table 4–19**  
**AC Avenger Training Strategy**

Event	LEVEL	FREQ	Equipment	DODIC	
				L367	PL90/PL93
Battle Drills <sup>1,2</sup>	SEC/TM	24	Tactical Equipment, CFT, FHT		
Tracking Practice <sup>1,2</sup>	SEC/TM	24	Tactical Equipment, Avenger TTT, Stinger TPT, CFT		
FTX <sup>3</sup>	PLT	4		0	0
	btry	4		20	0
	BN	2		20	0

**Table 4–19**  
**AC Avenger Training Strategy—Continued**

LFX <sup>4</sup>	SEC	1	10	1 <sup>4</sup>
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Notes:

<sup>1</sup> Standards are in ARTEP 44–117–22–DRILL.

<sup>2</sup> Units will use the RPVTS or its equivalent for team qualification using Captive Flight Trainer (CFT).

<sup>3</sup> One FTX will be externally evaluated per ARTEP 44–117–35–MTP, ARTEP 44–117–22–MTP, and unit METL.

<sup>4</sup> Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles and the M3P live fire. Scoring is required for M3P live fire; if scoring devices are not available a subject matter expert must provide the assessment. Selected (one out of every four) crews will fire a live Stinger missile "when available."

**Table 4–20**  
**Avenger M3P MG Practice<sup>1</sup>/Qualification<sup>1</sup>/LFX Engagements**

Eng #	Target	Course	Rng KM	Standards	DODIC	
					A557	CFT
1	Ground	Static	.4-.6K	Hit target	25	0
2	Ground	Static	.6-.9K	Hit target	25	0
3	Ground	Moving or static	.4-.6K	Suppress RPG-team	25	0
4	Ground	Moving or static	.6-.9K	Hit target	25	0
5	Aerial	Pop-up helicopter	.4-.6K	Hit target	25	0
6	Aerial	Crossing, diving, inbound	.2-.8K	Hit target	25	0
7	Aerial	Climbing and crossing	.2-.8K	Destroy target	0	1
8	Aerial	Crossing, inbound	.2-.8K	Destroy target	25	1
9	Aerial	Crossing level	.2-.8K	Destroy target	0	1
10	Aerial	Crossing, outbound	.2-.8K	Destroy target	0	1
11	Aerial	Crossing, diving	.2-.8K	Hit target	25	0
12	Aerial	Incoming	.2-.8K	Destroy target	0	1
13	Aerial	Incoming, pop-up helicopter, NBC	.4-.6K	Hit target	25	0

Notes:

<sup>1</sup> Units will fire once every six months (AC) or once every 12 months (NG).

**Table 4–21**  
**Ammunition Requirements with Training Strategy for Avenger M3P MG**

Engagements	Rounds Per						DODIC
	Prac <sup>1,3</sup> table VII		Qual <sup>1,3</sup> table VIII		LFX <sup>3,4</sup> table X		
	SL	G	SL	G	SL	G	
1 <sup>2,3</sup>	25		50		75		A557
2 <sup>2,3</sup>	25		50		75		A557
3 <sup>2,3</sup>		25		50		75	A557
4 <sup>2,3</sup>		25		50		75	A557
5 <sup>2,3</sup>		50		50		75	A557
6 <sup>4</sup>	CFT		CFT				
7 <sup>4</sup>	CFT		CFT				
8 <sup>4</sup>		CFT		CFT			
9 <sup>4</sup>		CFT		CFT			
10 <sup>4</sup>		CFT		CFT			

**Table 4-21**  
**Ammunition Requirements with Training Strategy for Avenger M3P MG—Continued**

Cycle Rate of Fire	50	50	100	A557			
Collective Training							
Btry FTX			20	L367			
BN ARTEP	150	150		A598			
			20	L367			
LFX <sup>3,4</sup>			10	L367			
			1 <sup>3,4</sup>	PL90/ PL93			
Total Per Avenger							
Semi-annual							
Mix	50	150	100	200	A557		
Blanks	75	75			A598		
Annual Total							
Mix	100	300	200	400	150	325	A557
ATWESS						50	L367
Stinger Missile						1 <sup>3,4</sup>	PL90/ PL93
Blank	150	150					A598
Total Rounds per Avenger: 1475 Mix/300 Blank/50 ATWESS/1 Stinger missile <sup>4</sup>							

Notes:

<sup>1</sup> Units will fire twice annually or twice per training year (NG). Avenger Gunnery tables VII, VIII and LFX, ARTEP 44-117-22-MTP, appendix A.

<sup>2</sup> Units will use the RPVTS or its equivalent as an aerial target for Stinger missiles and M3P live fire. Scoring is required for M3P live fire; if scoring devices are not available a subject matter expert must provide the scoring.

<sup>3</sup> Captive Flight Trainer (CFT) and the RPVTS, or its equivalent aerial target, is required for this engagement.

<sup>4</sup> One team will fire a live Stinger training missile, when available, while all other available section members track with CFT. Allocation: one missile per four crews per year for AC, or one missile per four crews per training year for NG, when available.

#### 4-11. Patriot ADA Brigades and Battalions (P)

##### *a. Patriot Standards.*

(1) All assigned crews will train to standard in either ARTEP 44-635-MTP (Patriot Battery Air and Missile Battalion) or FM 3-01.86 and ARTEP drills (ARTEP 44-635-11-DRILL: EPP/AMG, ARTEP 44-635-12-DRILL: ICC/EPU II/CRG, ARTEP 44-635-13-DRILL: ECS/RS, and ARTEP 44-635-14-DRILL: LS/Missile Reload).

(2) Seventy-five percent (AC) of all TCO/TCA (battery) or TD/TDA (battalion) battle crews assigned must qualify in the Air Battle Management qualifications (TPT, Crew Drill, Heavy Raid Scenario, Point and Area Defense against ABTs and TBMs) with an eighty percent (80 percent) or better asset protection, as measured by the computer and Subject Matter Experts (SMEs) every 12 months. The Launcher Platoon must qualify two Missile Reload crews every 12 months.

(3) Each firing battery must qualify in the Patriot March Order and Emplacement crew drills in accordance with ARTEP 44-635-11-DRILL (EPP/AMG), ARTEP 44-635-13-DRILL (ECS/RS), and ARTEP 44-635-14-DRILL (LS/Missile Reload) every 12 months. The Headquarters and Headquarters Battery must qualify in the Patriot March Order and Emplacement crew drill in accordance with ARTEP 44-635-12-DRILL (ICC/EPU II/CRG) every 12 months.

##### *b. Training Strategy.*

(1) The Combined Arms Training Strategy (CATS) for Patriot is outlined in ARTEP 44-635-MTP (Patriot Battery Air and Missile Battalion) and FM 3-01.86 (Patriot Gunnery Program).

(2) Crew training strategy is provided in table 4-22 (AC). Unit training strategy is provided in table 4-23 (AC).

(3) Ammunition requirement is based on total system validation with one missile per battery, every two years “when available.”



**Table 4–22**  
**Patriot Crew Training Strategy (AC)**

Event	CATS table	FREQ	How
Air Battle Training	III	104	Tactical Equipment/Training Devices/Classroom
	V <sup>1</sup>	22	TPT or PCOFT
	VII <sup>1</sup>	22	TPT or PCOFT
	IX	8	Tactical Equipment
Crew Drills	II <sup>1</sup>	104	Tactical Equipment
	VI <sup>1</sup>	40	Tactical Equipment
	VII <sup>1</sup>	18	Tactical Equipment
	X	14	Tactical Equipment
	XI	6	Tactical Equipment
Missile Reload Crew Drill	V	21	Tactical Equipment/ MRT
	IV	7	Tactical Equipment/ MRT

Notes:

<sup>1</sup> Refer to Patriot Gunnery Program in FM 3–01.86 and ARTEP 44–635–MTP (Patriot Battery Air and Missile Defense Battalion).

**Table 4–23**  
**Patriot Unit Training Strategy (AC)**

Event	FREQ	Level	DODIC
TEWT	4	Battalion	
MAPEX	4	Battery	
ADX	4	Battalion	
CPX	4	Battalion	
STX	4	Battery/Battalion	
DEPEX	2	Battalion	
FTX	6	Battery	
	2 <sup>3</sup>	Battalion	
EXEVAL	1 <sup>1</sup>	Battery	
	1 <sup>1</sup>	Battalion	
CTX	1	Battalion	
LFX <sup>2</sup>	1	Battery <sup>2</sup>	PA49

Notes:

<sup>1</sup> May be conducted in lieu of FTX.

<sup>2</sup> As a minimum, each battery fires a missile once every two (2) years.

<sup>3</sup> A Battalion FTX may be substituted with one (1) or two (2) Battery FTXs for a possible total of eight (8) Battery FTXs.

## Chapter 5

### Infantry

#### 5–1. Description

*a.* This chapter provides weapon qualification and collective training standards, and resource authorizations for Infantry units. The Army is transforming into a Modular Force consisting of Heavy Brigade Combat Teams, Light Brigade Combat Teams and Stryker Brigade Combat Teams. This chapter contains separate sections for each modular type unit. TDA requirements are addressed in paragraph 5–1c. Unique collective training requirements and resourcing are segregated into three separate sections, Light Infantry Brigade Combat Team, Stryker Brigade Combat Team (SBCT), and Heavy Brigade Combat Team. Army Reserve Training Battalions are addressed in the last section of this chapter, section VI.

*b.* The objective of STRAC is to assist commanders in attaining and sustaining standards in accordance with their

unit makeup and component, and to ensure that combat proficiency is maintained in units on Engineer systems, mines and demolitions. Weapon system specific training devices should be used to progressively aid individual and collective skill development in garrison, local training areas and combat training centers. The devices provide higher frequency training opportunities to sustain skill sets in accordance with FM 7-0's sustainment training band. The standard is assessed against the unit's ability to maintain published ARTEP standards for squad qualification and combat readiness with and without the use of live fire exercises.

## 5-2. Infantry Proponent Strategies

*a.* This section contains TADSS information, weapon qualification, collective training and resource requirements for Active Army, Reserve, and National Guard Light Infantry units. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000.

*b.* Active Component (AC) TDA units with personnel assigned individual weapons will qualify every six months. Reserve Component (RC) personnel assigned individual weapons will qualify every 12 months. Consult the appropriate section of this chapter to determine authorized resourcing for qualification. Personnel in any TDA unit who are not assigned individual weapons are exempt from weapon qualification in accordance with AR 350-1, Chapter 4, paragraph 4-10(5)d.

## 5-3. Training Aids, Devices, Simulators and Simulations (TADSS)

*a.* Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-Armor training strategies are wholly reliant on TADSS for qualification.

*b.* The Light Infantry TADSS section (para. 5-4) contains TADSS information on devices that are found in most units. The SBCT and Mechanized sections contain TADSS information specifically relevant to that type unit.

## 5-4. STX Lane Training:

table 5-1 provides blank ammunition for the M16/M4, M249, M240, and M2 to those USAR units specifically designated as force support package one or two (FSP 1 or 2).

*a.* Standards for lanes training will be based on the applicable ARTEP and structured to train collective events and evaluate designated early deploying units METL. Priority for lanes will be to Force Support Package (FSP) units, Divisional Round Out (RO) units, Enhanced Separate Brigades (ESB's), Attack Helicopter (AH-64) units, and units with Latest Arrival Date (LAD's) to theater \* 30 days. The specific units are selected and designated in writing BI-annually by the CONUSA's. STX Lane Training table contains the authorized number of rounds per weapon. Lane training will be conducted during Annual Training (AT) or Multiple Unit Assembly (MUTA). Further guidance on lane training is in TC 25-10.

*b.* The intent of the lanes training program is to provide the optimal collective training event and readiness assessment possible for high priority ESB, CS, and CSS units that are not resourced for STX/FTX blank ammunition in the individual weapons tables. These evaluations are supported by RC Training Support Division (TSD) exercise units.

**Table 5-1**  
**STX Lane Training for the National Guard**

	IDT/AD Lane Training		FREQ	Total
	DODIC	Rnds		
M16/M4	A080	40	2	80
M249AR	A075	100	2	200
M249LMG	A075	100	2	200
M240B	A111	100	2	200
M2	A598	50	2	100

Notes:

<sup>1</sup> This table applies to high priority CS/CSS units.

## 5-5. Light Infantry TADSS

a. Dragon Field Handling Trainer (FHT). The FHT simulates the configuration of the Dragon tactical round. Trainers should use the FHT in lieu of the Dragon tactical round and Launch Effects Trainer (LET) when conducting field handling exercises to prevent unnecessary damage to the tactical round and LET. The FHT (used with the tracker) will aid gunners and trainers in performing and evaluating the preparatory marksmanship steps (positions, sighting and aiming, breathing and tracking).

b. Dragon Gunnery Trainer (DGT) (Trainer, Gunnery, Antitank: AN/TWQ-2 Army Device No 07-76). The DGT has the features of the TGT but uses a simulated Dragon launcher. Launch effects and flight characteristics are seen, felt and heard by the gunner. The DGT is a Training Support Center item. It replaces the M57 Launch Effects.

c. Dragon Field Tactical Trainer (DFTT). (Trainer Guided Missile: AN/TWQ-T4, Army Device No. 07-79). The DFTT is similar to the TFTT, but configured to resemble Dragon missile components. The DFTT accepts either the Dragon Day Tracker or Night Sight. The DFTT also uses the M80 TOW (DODIC L592) blast simulator. The DFTT operates from a range of 200 to 1000 meters.

d. Javelin Basic Skills Trainer (BST). The BST consists of a student station and an instructor station. It is an indoor/shipboard training device that can test the gunner's skills in a wide variety of situations. The student station consists of a simulated CLU and Simulated Missile Round (SMR). The instructor station consists of a color video display screen, an 80386-based microcomputer, hard and floppy disk drives, a keyboard, and an air conditioner. The instructor station allows the instructor to view all of the gunner's actions and to create new training exercises. The BST runs engagement exercises that are displayed as computer-generated images in the simulated CLU.

e. Javelin Field Tactical Trainer (FTT). The FTT consists of a Simulated Round (SR) and an Instructor Station. The FTT is designed to be used as an outdoor trainer and is equipped with the Multiple Integrated Laser Engagement System (MILES).

f. Javelin Missile Simulation Round (MSR). The MSR consists of a sealed launch tube that contains no instruments or circuitry. It simulates the weight and balance of the round and has CLU and BCU connectors. The MSR is used to train gunners how to maintain, handle, and carry the round Javelin Training Devices; TOW Improved Target Acquisition Sight (ITAS) Basic Skills Trainer (BST) replaces the TOW Gunnery Trainer (TGT) if equipped. The BST consists of a student station and an instructor station. It is an indoor/outdoor training device that tests the gunner's skills in a wide variety of situations. The student station consists of a simulated ITAS and Simulated Missile Round (SMR). The instructor station consists of a color video display screen, an 80386-based microcomputer, hard and floppy disk drives, a keyboard, and an air conditioner. The instructor station allows the instructor to view all of the gunner's actions and to create new training exercises. The BST runs engagement exercises that are displayed as computer-generated images in the simulated ITAS.

g. The TGT (Trainer, Gunnery, antitank: AN/TWQ-T1, Army Device No. 07-77) is a videodisc based trainer designed for use in a classroom, maintenance or ship troop bay. It consists of an instructor console and student station consisting of a simulated sight unit attached to the user's TOW 2 tripod and traversing unit. Each TGT comes with an optical disc library of gunnery scenarios. These scenarios are presented in day view or thermal modes, include visual and aural launch effect, and contain a mix of threat and friendly vehicles. Gunner performance is reported as HIT or MISS with miss distance and tracking score.

h. TOW Field Tactical Trainer (TFTT). (Trainer Guided Missile: AN/TWQ-T3, Army Device No. 07-78). The TFTT is an eye-safe, precision-laser range device configured to resemble actual TOW components. The TFTT appends to a TOW 2 launcher, temporarily converting it to a high fidelity precision trainer. The TFTT operates from vehicle or battery power and uses the M80 TOW blast simulator. The TFTT operates from the tripod or M966 HMMWV TOW. The TFTT operates in all weather from a range of 200 to 3750 meters and uses standard range targets or vehicle targets equipped with a laser retro-reflector. The TFTT may be used in limited force on force exercises if target vehicles also have MILES detector belts installed.

i. The 81MM insert for the 120MM mortar (M303). Consists of an 81MM (M29A1) barrel, a filler block and a sleeve that fits inside the 120MM barrel. It is capable of firing 81MM 300 series ammunition to include the training ammunition (M880 SRTR). The M303 insert cannot fire the 81mm Full Range Training Round (FRTR). The 81MM barrel insert device is intended to meet all training requirements for the mortar system. The insert permits firing all of the ARTEP critical tasks thereby training all of the indirect fire team (FO, FDC, and crews).

j. Short Range Training Round (SRTR). The SRTR are being phased out and replaced with Full Range Training Rounds (FRTR). The SRTR is either a 60mm (M766) or an 81mm (M880) round with the appropriate refurbishment kit (class V item). The SRTR has one tenth the range of a full service round, but is ballistically similar. The SRTR is a device for training all elements of the indirect fire team. It provides the forward observer with a sound/visual signal by which he can spot rounds and make adjustments. The fire direction center (FDC) computes actual data. The gun crew places data obtained from the FDC on the gun and drops a life size round down the tube. The entire team functions exactly as in a live-fire exercise. The SRTR is designed to supplement and enhance the total mortar training program. It does require a designated mortar training range/area and should not be fired into a live-fire/HE impact area. Crews must use a special tool kit, available at each installation, in order to safely recover and refurbish either the M880 or the

M766 cartridge. SRTR is employed using either 60mm or 81mm weapons systems or the 120mm systems with the appropriate insertable sleeve.

k. The mortar Full Range Training Round (FRTR). The FRTR is designed to provide realistic mortar crew training, through a ballistically matched practice rounds, at reduced cost. The round produces a flash, bang, smoke signature and simulates the fuze setting.

l. Short Range Training Ammunition (SRTA). Small arms short range training ammunition (SRTA) may be used in lieu of full caliber ammunition for individual and collective training when range facilities do not support the use of full caliber ammunition. SRTA has been added to the collective training ammunition allocations for active units. SRTA may require weapon modifications, i.e. M2 recoil amplifier for the M2 HMG and M2 bolt assembly for the M16/M4.

m. The Close Combat Capability Kit (CCMCK) is a mission rehearsal tool used for close proximity force on force training. The CCMCK consists of weapon attachments that allow the firing of Special Effects Small Arms Marking System (SESAMS) for the M9, M16/M4 and M249 SAW and safety gear. SESAMS should not be confused with Short Range Training Ammunition (SRTA). SESAMS is a paintball type round SRTA is a lethal round with a reduced surface danger zone (SDZ).

n. EST 2000 is a home station, indoor, multipurpose, multilane, small arms, crew served, and anti-armor gunnery simulator. Eleven weapons are replicated including the rifle, carbine, pistol, grenade launcher, all machine guns including the MK19, AT4, and M1200 Shotgun. The EST 2000 has three modes of training: Marksmanship using FM courses of fire, Tactical Collective, and Shoot-Don't Shoot, and is a stand alone, deployable trainer.

o. LMTS enables Soldiers to sustain essential small arms marksmanship skills using actual service weapons, anywhere, without live fire. System components include eye safe laser transmitters, electronic target arrays with integral precision hit detection and scoring capability, target control station, and full system software. LMTS is Lightweight, low cube, deploys anywhere, and supports marksmanship training on M16, M4, M9, M249, M240B, M60, and M2.

## 5-6. Individual Weapon Qualification Requirements

Some qualification events are categorized by ancillary optics or NVD assigned. Only Soldier's assigned additional optics/NVDs are authorized to conduct the qualification event listed.

a. *M9 Semi-Automatic Pistol Qualification Standard.* (See table 5-2)

(1) Ninety percent of Soldiers assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 within the past six months.

(2) Eighty percent of National Guard and Army Reserve assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 every 12 months.

**Table 5-2**  
**M9 Qualification (FM 3-23.35)**

Event	Type	DODIC <sup>3</sup>	Rounds	AC	RC
Pre Marksmanship Training	TADSS		0	4	4
Instructional Fire	Ball		40	2	1
Combat Pistol Qual Course <sup>1</sup>	Ball		40	2	1
CPQC table VI NBC Qual <sup>1,2</sup>	Ball/EST		7	2	1
CPQC table VII Night Qual <sup>1,2</sup>	Ball/EST		5	2	1
Non EST Equipped Units	Commercial Pack	AA49	184	92	92
EST Equipped Units	Commercial Pack	AA49	160	80	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations Equipped with EST 2000, Night & NBC Qualification will be conducted on EST 2000.

<sup>3</sup> OCONUS units will request DODIC A363 in lieu of AA49.

b. *M16 Rifle/M4 Carbine Qualification Standard.* (See table 5-3) Primary and Secondary day sight: The primary sight is either the Close Combat Optic (CCO)/Advanced Combat Optical Gun sight (ACOG) or iron sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(1) Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9

within the past six months with the primary day sight and nights sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard will alternate primary and secondary sight qualification every year, if equipped.

(3) Day Requirements without EST 2000: Soldiers will qualify on the day and NBC record course.

(4) Day Requirements with EST 2000: Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(5) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3–22.9. Units equipped with the EST 2000 will conduct night unassisted qualification on the EST 2000. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS) and Infrared Aiming Light.

**Table 5–3**  
**M16/M4 Qualification (FM 3–22.9)**

		DODIC <sup>3</sup>		FREQ	
Event	Type	AA33	A063	AC	RC
Iron Sight (Primary Sight)					
Pre Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
Close Combat Optic (Primary Sight) <sup>2</sup>					
Pre Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Practice Record	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight <sup>2</sup>					
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36		2	1
Night Field Fire I	Ball	36		2	1
Practice Record	Ball	40		2	1
Record <sup>1</sup>	Ball	40		2	1
Subtotal				304	152
Infrared <sup>2</sup>					

**Table 5–3**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

IR Zero <sup>1</sup>	Ball	18	2	1
IR Night Field Fire I	Ball	36	2	1
IR Practice Record	Ball	40	2	1
IR Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>268</b>	<b>134</b>

	Total Rounds AC w/o EST/w/ EST		RC w/o EST/w/ EST	
	AA33	A063	AA33	A063
Iron Sight Only Qual	356/196	40/0	178/98	20/0
CCO & BIS Qual	454/294	40/0	276/196	20/0
Thermal Weapon Sight	304/304	0/0	152/152	0/0
Infrared	268/268	0/0	134/134	0/0

Notes:

<sup>1</sup> Indicates Required Events Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

*c. Shotgun Qualification/Ballistic Breaching.* (See table 5–4) Soldiers assigned to an Infantry squad that are designated to conduct ballistic shotgun breaching of doors will qualify on the shotgun every six months. Two Soldiers per squad are resourced to conduct qualification. Qualification will be conducted in accordance with STP 19–95C14 dated 26 Mar 99, Task # 191–381–1254. Soldiers must be qualified prior to conducting shotgun ballistic breaching.

**Table 5–4**  
**Shotgun Training Strategy**

Event	DODIC	FREQ	
	A011	AC	RC
PMI	EST	2	1
Instructional Fire	3	2	1
Qualification Fire	10	2	1
<b>Total Per Soldier</b>		<b>26</b>	<b>13</b>
<b>Shotgun Door Breaching Training Strategy</b>			
	AA54	AC	RC
Ballistic Breaching	8	2	0
<b>Total Per Soldier</b>	<b>16</b>	<b>16</b>	<b>0</b>

*d. M203 GL Qualification Standard.* (See table 5–5)

(1) Ninety percent of Soldiers assigned the M203 GL will zero and meet the day and night qualification standards if assigned the AN/PVS–4 in FM 3–22.31 within the past six months.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M203 GL will zero and meet the day and night qualification standards if assigned the AN/PVS–4 in FM 3–22.31 every 12 months.

**Table 5-5**  
**M203 Qualification (FM 3-22.31)**

Event	Type	DODIC			FREQ	
		B519	AA33	B546	AC	RC
Day Zero	TP	6			2	1
Day Qualification	TP	15			2	1
Zero AN/PVS-4	Ball		18		2	1
Night Qualification <sup>1</sup>	HE			3	2	1
<b>Total Rounds</b>						
		<b>AC</b>			<b>RC</b>	
DODIC	B519	AA33	B546	B519	AA33	B546
	42	36	6	21	18	3

Notes:

<sup>1</sup> Night Qualification is conducted only if assigned the AN/PVS-4.

*e. M249 AR Qualification Standard.* (See table 5-6) Primary and Secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.68 and if equipped with night vision devices, conduct night qualification in accordance with TC 23-AIMSS within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.68 and night qualification standards in TC 23-AIMSS every 12 months. The NG and USAR will alternate primary and secondary sight qualification every year if equipped.

(3) Day Requirements without EST 2000: Conduct 10-meter and Transition Fire in accordance with FM 3-22.68.

(4) Day Requirements with EST 2000: Conduct 10-meter fire on the EST 2000. Conduct Transition Fire in accordance with FM 3-22.8.

(5) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3-22.68. Units equipped with the EST 2000 will conduct night unassisted qualification on the EST 2000. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS) and Infrared Aiming Light.

**Table 5-6**  
**M249AR Qualification (FM 3-22.68)**

	Type	DODIC		FREQ	
Event		A062	A064	AC	RC
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
Subtotal (A062/A064)					
Units not equipped with EST				216/288	108/144

**Table 5–6**  
**M249AR Qualification (FM 3–22.68)—Continued**

Units equipped with EST			0/288	0/144
Machine Gun Optic (Primary Sight) <sup>2</sup>				
Pre Marksmanship Training	TADSS		4	N/A
Firing table I				
10m Zero (MGO) <sup>1</sup>	Ball or EST	6	2	N/A
10m Practice (MGO)	Ball or EST	51	2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51	2	N/A
Iron Sight 10m Zero	Ball or EST	6	1	N/A
Iron Sight 10m Practice	Ball or EST	51	1	N/A
Iron Sight 10m Record	Ball or EST	51	1	N/A
Firing table II				
Transition Zero (MGO) <sup>1</sup>	Mix	12	2	N/A
Transition Practice (MGO)	Mix	66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix	66	2	N/A
Iron Sight Transition Zero	Mix	12	1	N/A
Iron Sight Transition Practice	Mix	66	1	N/A
Iron Sight Transition Record	Mix	66	1	N/A
Subtotal (A062/A064)				
Units not equipped with EST			324/432	N/A
Units equipped with EST			0/432	N/A
Firing table III TC 23–AIMSS				
Thermal Weapon Sight <sup>2</sup>				
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1
TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Practice	Mix	66	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			468	234
Infrared <sup>2</sup>				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			432	216
Total Rounds				
AC		RC		
w/o EST/w/ EST		w/o EST/w/ EST		
	A062	A064	A062	A064
Iron Sight Only	216/0	288/288	108/0	144/144
MGO & Iron Sight	324/0	432/432	N/A	N/A
Thermal Weapon Sight	0/0	468/468	0/0	234/234
Infrared	0/0	432/432	0/0	216/216

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations Equipped with EST 2000, Night & NBC Qualification will be conducted on EST 2000.



*f. M249 LMG Qualification Standard.* (See table 5–7) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Ninety percent of Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary daysight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The AR and ARNG will alternate primary and secondary sight qualification every year if equipped.

(3) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course.

(4) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3–22.9. Units equipped with the EST 2000 will conduct night unassisted qualification on the EST 2000. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS) and Infrared Aiming Light.

**Table 5–7**  
**M249 LMG Qualification (FM 3–22.68)**

		DODIC		FREQ	
Event	Type	A062	A064	AC	RC
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero for Bipod and Tripod <sup>1</sup>	Ball or EST	24		2	1
10m Practice	Ball or EST	161		2	1
10m Record <sup>1</sup>	Ball or EST	91		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		28	2	1
Transition Practice	Mix		154	2	1
Transition Record <sup>1</sup>	Mix		154	2	1
Subtotal (A062/A064)					
Units not equipped with EST				552/672	276/336
Units equipped with EST				0/672	0/336
Machine Gun Optic (Primary Sight) <sup>2</sup>					
Pre Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero for Bipod and Tripod (MGO) <sup>1</sup>	Ball or EST	24		2	N/A
10m Practice (MGO)	Ball or EST	161		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	91		2	N/A
Iron Sight 10m Zero for Bipod and Tripod	Ball or EST	24		1	N/A
Iron Sight 10m Practice	Ball or EST	161		1	N/A
Iron Sight 10m Record	Ball or EST	91		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		28	2	N/A
Transition Practice (MGO)	Mix		154	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		154	2	N/A
Iron Sight Transition Zero	Mix		28	1	N/A

**Table 5–7**  
**M249 LMG Qualification (FM 3–22.68)—Continued**

Iron Sight Transition Practice	Mix	154	1	N/A														
Iron Sight Transition Record	Mix	154	1	N/A														
<b>Subtotal (A062/A064)</b>																		
Units not equipped with EST			828/1008	N/A														
Units equipped with EST			0/1008	N/A														
<b>Thermal Weapon Sight<sup>2</sup></b>																		
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1														
TWS Night Field Fire III	Mix	154	2	1														
TWS Limited Visibility Practice	Mix	154	2	1														
TWS Limited Visibility Qualification <sup>1</sup>	Mix	154	2	1														
<b>Subtotal</b>			<b>996</b>	<b>498</b>														
<b>Infrared<sup>2</sup></b>																		
IR Zero <sup>1</sup>	Mix	18	2	1														
IR Night Field Fire III	Mix	154	2	1														
IR Practice	Mix	154	2	1														
IR Qualification <sup>1</sup>	Mix	154	2	1														
<b>Subtotal</b>			<b>960</b>	<b>480</b>														
<table> <tr> <th rowspan="2"></th><th colspan="2">Total Rounds AC</th><th colspan="2">RC</th></tr> <tr> <th>w/o EST/w/ EST</th><th></th><th>w/o EST/w/ EST</th><th></th></tr> <tr> <th></th><th>A062</th><th>A064</th><th>A062</th><th>A064</th></tr> </table>						Total Rounds AC		RC		w/o EST/w/ EST		w/o EST/w/ EST			A062	A064	A062	A064
	Total Rounds AC		RC															
	w/o EST/w/ EST		w/o EST/w/ EST															
	A062	A064	A062	A064														
Iron Sight Only	552/0	672/672	276/0	336/336														
MGO & Iron Sight	828/0	1008/1008	N/A	N/A														
Thermal Weapon Sight	0/0	996/996	0/0	498/498														
Infrared	0/0	960/960	0/0	480/480														

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations Equipped with EST 2000, Night & NBC Qualification will be conducted on EST 2000.

<sup>3</sup> OCONUS units will request DODIC A363 in lieu of AA49.

*g. M240B MG Qualification Standard (See table 5–8).* Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(1) Ninety percent of Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The AR and ARNG will alternate primary and secondary sight qualification every year if equipped.

(3) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course.

(4) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3–22.9. Units equipped with the EST 2000 will conduct night unassisted qualification on the EST 2000. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS) and Infrared Aiming Light.

**Table 5–8**  
**M240B MG Qualification (FM 3–22.68)**

Event	Type	DODIC		FREQ	
		A143	A131	AC	RC
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero for Bipod and Tripod <sup>1</sup>	Ball or EST	24		2	1
10m Practice	Ball or EST	161		2	1
10m Record <sup>1</sup>	Ball or EST	91		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		28	2	1
Transition Practice	Mix		154	2	1
Transition Record <sup>1</sup>	Mix		154	2	1
Subtotal (A143/A131)					
Units not equipped with EST				552/672	276/336
Units equipped with EST				0/672	0/336
Machine Gun Optic (Primary Sight) <sup>2</sup>					
Pre Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero for Bipod and Tripod (MGO) <sup>1</sup>	Ball or EST	24		2	N/A
10m Practice (MGO)	Ball or EST	161		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	91		2	N/A
Iron Sight 10m Zero for Bipod and Tripod	Ball or EST	24		1	N/A
Iron Sight 10m Practice	Ball or EST	161		1	N/A
Iron Sight 10m Record	Ball or EST	91		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		28	2	N/A
Transition Practice (MGO)	Mix		154	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		154	2	N/A
Iron Sight Transition Zero	Mix		28	1	N/A
Iron Sight Transition Practice	Mix		154	1	N/A
Iron Sight Transition Record	Mix		154	1	N/A
Subtotal (A143/A131)					
Units not equipped with EST				828/1008	N/A
Units equipped with EST				0/1008	N/A
Thermal Weapon Sight <sup>2</sup>					
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix		36	2	1
TWS Night Field Fire III	Mix		154	2	1
TWS Limited Visibility Practice	Mix		154	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix		154	2	1
Subtotal				996	498
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Mix		18	2	1

**Table 5–8**  
**M240B MG Qualification (FM 3–22.68)—Continued**

IR Night Field Fire III	Mix	154	2	1
IR Practice	Mix	154	2	1
IR Qualification <sup>1</sup>	Mix	154	2	1
Subtotal			960	480
	Total Rounds			
	AC		RC	
	w/o EST/w/ EST		w/o EST/w/ EST	
	A062	A064	A062	A064
Iron Sight Only	552/0	672/672	276/0	336/336
MGO & Iron Sight	828/0	1008/1008	N/A	N/A
Thermal Weapon Sight	0/0	996/996	0/0	498/498
Infrared	0/0	960/960	0/0	480/480

*h. M24 Sniper Rifle Qualification Standard.* (See table 5–9)

(1) Ninety percent of Soldiers assigned the M24 Sniper Rifle will zero and meet the qualification standards for the iron sight, M3A Scope, and AN/PVS–10 every three months in accordance with FM 23–10 w/Change 1.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M24 Sniper Rifle will zero and meet the qualification standards for the iron sight, M3A Scope, and AN/PVS–10 in accordance with FM 23–10 w/Change 1 every 12 months.

**Table 5–9**  
**M21/24 Sniper Rifle (FM 23–10)**

		DODIC		FREQ	
Event	Type	AA11	AC	RC	
Prel Marksmanship Training	TADSS	0	12	4	
Zero					
Iron Sights <sup>1</sup>	Ball	18	4	3	
M3A Scope <sup>1</sup>	Ball	18	4	4	
AN/PVS–10 DNS <sup>1</sup>	Ball	18	12	3	
Sustainment					
Iron Sights	Ball	45	4	3	
M3A Scope	Ball	45	8	4	
AN/PVS–10 DNS	Ball	45	8	3	
Qualification					
Iron Sights <sup>1</sup>	Ball	45	4	3	
M3A Scope <sup>1</sup>	Ball	45	4	3	
AN/PVS–10 DNS <sup>1</sup>	Ball	45	4	3	
Total Rounds					
Zero/Sustainment/Qualification			1800	1035	

Notes:

<sup>1</sup> Indicates Standard.

i. *M107 .50 Cal Sniper Rifle Qualification Standard.* table 5–10 will be superseded by table 5–10a when the XM1022 bullet is fielded.

(1) Ninety percent of Soldiers assigned the M107 Sniper Rifle will zero and meet the standards for the iron sight and qualification standards for the day optic in accordance with FM 23–10 w/Change 1 every six months. When the night sight is fielded, Soldiers will meet the qualification standards in accordance with FM 23–10 w/Change 1 every six months.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the M107 Sniper Rifle will zero and meet the standards for the iron sight and qualification standards for the day optic in accordance with FM 23–10 w/Change 1 annually. When the night sight is fielded, Soldiers will meet the qualification standard in accordance with FM 23–10 w/Change 1 annually.

**Table 5–10**  
**M107 Sniper Rifle Qualification (FM 23–10 w/Change1)**

Event	Type	Rnds	FREQ	
			AC	RC
Pre Marksmanship Training	EST	0	6	4
Zero Iron Sight <sup>1</sup>	Ball	18	1	1
	Ball	18	2	1
Zero Day Optic <sup>1</sup>	AP	9	2	1
	API	9	2	1
	HEAPI	9	1	0
Zero Night Optic <sup>1</sup>	Ball	18	2	1
	AP	9	2	1
	API	9	2	1
Sustainment Iron Sight	Ball	23	1	1
	Ball	50	2	1
Sustainment Day Optic	AP	54	2	1
	API	40	2	1
	HEAPI	30	1	0
Sustainment Night Optic	Ball	50	2	1
	AP	54	2	1
	API	40	2	1
Qual Iron Sight <sup>1</sup>	Ball	25	1	1
	Ball	20	2	1
Qual Day Optic <sup>1</sup>	AP	28	2	1
	API	22	2	1
	Ball	20	2	1
Qual Night Optic <sup>1</sup>	AP	28	2	1
	API	22	2	1
Total for Qualification				
	DODIC		RC	
Ball	A552		242	
AP	A525		182	
API	A531		142	
HEAPI	A606		0	

Notes:

<sup>1</sup> Indicates Standard.

**Table 5–10A**  
**M107 Sniper Rifle Qualification (FM 23–10 w/Change1)<sup>1</sup>**

Event	DODIC	Rnds	FREQ	
			AC	RC
Qualification				
Iron Sight Zero ( SEE NOTE 1)	XM1022	10	1	1
Sustainment/Dope/Known Distance	XM1022	20	1	1
Sustainment/Dope/Unknown Dist	XM1022	20	1	1
Day Optic Zero	XM1022	10	2	1
Sustainment/Dope/Known Distance	XM1022	60	2	1
Sustainment/Dope/Unknown Dist	XM1022	60	2	1
Pre Qualification	XM1022	45	2	1
Qualification	XM1022	45	2	1
Night Sight Zero	XM1022	30	2	1
Sustainment/Dope/Known Distance	XM1022	40	2	1
Sustainment/Dope/Unknown Dist	XM1022	40	2	1
Pre Qualification	XM1022	25	2	1
Qualification	XM1022	25	2	1
Total for Qualification w/bore sight			430	
Total for Qualification wo/bore sight			460	

Notes:

<sup>1</sup> If bore sight have not been issued, unit will request 30 rounds for zero.

*j. MK–19 GMG Qualification Standard.* (See table 5–11)

(1) Ninety percent of Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 within the past six months. table 5–10 resources the maximum number of rounds authorized for qualification. in accordance with FM 3–22.27, resourcing requirements are dependent upon range facilities, target type and sight utilized. Qualification can be fired mounted or dismounted.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned, AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 5–11**  
**MK–19 GMG Qualification FM 3–22.27**

Event	DODIC	Type	Rnds	FREQ	
				AC	RC
Preliminary Marksmanship Training		EST			
table I Day Practice	B584	TP	62	2	1
table II Day Qualification <sup>1</sup>	B584	TP	62	2	1
<b>Night Qualification AN/PEQ–2A (IR)</b>					
table III Night Practice	B584	TP	62	2	1
table IV Night Qualification <sup>1</sup>	B584	TP	62	2	1
<b>AN/PAS–13 (Thermal)</b>					
table III Night Practice	B584	TP	62	2	1
table IV Night Qualification <sup>1</sup>	B584	TP	62	2	1

**Table 5–11**  
**MK–19 GMG Qualification FM 3–22.27—Continued**

Total For Qualification				
Total For Day	B584	TP	248	124
Total for Night AN/PEQ–2A	B584	TP	248	124
Total for Night AN/PAS–13	B584	TP	248	124

Notes:

<sup>1</sup> Indicates standard.

*k. M2 .50 Cal MG Qualification Standard.* (See table 5–12)

(1) Ninety percent of Soldiers assigned the M2 .50 Cal MG will meet the day and night qualification standards in accordance with FM 3–22–65 within the past six months. Qualification can be fired mounted or dismounted.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the M2 .50 Cal MG will meet the day and night qualification standards in accordance with FM 3–22.65 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 5–12**  
**M2 .50 Cal Qualification FM 3–22.65**

Event	DODIC	Type	Rnds	FREQ	
				AC	RC
Pre Marksmanship Training		EST		4	4
Day Qualification					
table I Day Zero/Practice	A557	Mix	140	2	1
table II Day Zero/Qualification <sup>1</sup>	A557	Mix	140	2	1
Subtotal					
Night Qualification AN/PEQ–2A					
Night Zero <sup>1</sup>	A557	Mix	26	2	1
table III Night Practice	A557	Mix	126	2	1
table IV Night Qualification <sup>1</sup>	A557	Mix	126	2	1
Subtotal					
AN/PAS–13 HTWS					
Night Zero (NFOV & WFOV) <sup>1</sup>	A557	Mix	36	2	1
table III Night Practice	A557	Mix	126	2	1
table IV Night Qualification	A557	Mix	126	2	1
Subtotal					
Total Rounds for Qualification					
Day Qualification					
table I & II	A557			560	280
Night Qualification					
AN/PEQ–2A Qualification	A557			556	278
AN/PAS–13 HTWS Qualification	A557			576	288

Notes:

<sup>1</sup> Indicates Standard.

*l. AT-4 Qualification Standard.* (See table 5-13) Qualification requirements for Soldiers assigned to an Infantry or Recon platoon/section differ from CS/CSS Soldiers. Qualification is conducted using the M287 sub caliber tracer bullet trainer. Consult the appropriate requirements below. The EST 2000 can be used to train additional Soldiers not resourced in this table. **NOTE:** The Bunker Defeat Munitions (BDM) utilizes the same sighting system as the AT-4. The BDM is a contingency munitions and is not resourced for training.

(1) Infantry/Recon Requirements: Three Soldiers per Active Army Infantry squad and two Soldiers per Army Reserve & BCT Infantry squad will qualify in accordance with the Day and Night requirements listed below.

(2) Infantry/Recon Day Requirements: Qualify on Day Qualification table III in accordance with FM 3-23.25 every six months for Active Army; every 12 months for Army Reserve and Enhanced National Guard.

(3) Infantry/Recon Night Requirements: Qualify on Night Qualification table IV in accordance with FM 3-23.25 every six months with each of the following devices if assigned, IR Aiming Light, and AN/PAS-13 TWS: every 12 months for Army Reserve and Enhanced National Guard.

(4) CS/CSS Requirements: Ten percent of the assigned Soldiers (E-5s and below) will qualify on Day Qualification table III in accordance with FM 3-23.25 every six months: every 12 months for Reserve and National Guard.

**Table 5-13**  
**AT-4 Qualification (FM 3-23.5)**

Event	Type	DODIC	Rnds	FREQ		
				IN/Recon <sup>1</sup>	CS/CSS <sup>3</sup>	RC <sup>2</sup>
table I Instructional Day	A358	Tracer	12	2	1	1
table II Instructional Night	A358	Tracer	12	2	1	1
table III Day Qualification <sup>4</sup>	A358	Tracer	8	2	1	1
table IV Night Qualification <sup>4</sup>	A358	Tracer	8	2	0	1
table V Advanced Fire	A358	Tracer	6	2	0	0
<b>Total Rounds for Qualification</b>						
Qualification/Instructional Fire	A358			92	32	40

Notes:

<sup>1</sup> 3 Soldiers per Active Army Infantry squad qualify on the AT-4 (IN/Recon).

<sup>2</sup> 2 Soldiers per Reserve & National Guard Infantry squad qualify on the AT-4 (R/G IN).

<sup>3</sup> 10 percent of CS/CSS E-5 and below not assigned to an Infantry/Scout squad qualify on table III.

<sup>4</sup> Indicates Standard.

*m. Dragon Qualification Standard.* (See table 5-14)

(1) All Gunners and Assistant Gunners in accordance with FM 3-23.34 will pass the Gunner Skills Test (GST) every month; qualify on DGT table VIII and conduct DFTT advanced tracking every three months.

(2) Seventy-Five percent of assigned Army Reserve and National Guard gunners will pass the Gunner Skills Test (GST) every six months; qualify on DGT table VIII every 12 months and conduct DFTT advanced tracking every 12 months.

**Table 5-14**  
**Dragon Qualification**

Event	DODIC	FREQ	
	L592	AC	RC
Gunner Sustainment Training <sup>1</sup>	0	12	2
DGT Practice table 7	20	4	1
DGT Qualification table 8 <sup>1</sup>	20	4	1
DFTT Advanced Tracking <sup>1</sup>	40	4	1
<b>Rounds per Gunner</b>			



**Table 5–14**  
**Dragon Qualification—Continued**

	L592	320	80
Notes:			
<sup>1</sup> Indicates Standard.			

*n. Javelin Qualification Standard.* (See table 5–15)

(1) All Gunners and Assistant Gunners will meet the GST qualification standards in accordance with FM 3–23.37 every three months. The GST consists of BST qualification exercises, FTT qualification exercises, and a range card exercise. There are a total of 40 exercises.

(2) Seventy-Five percent of assigned Army Reserve and National Guard gunners will meet the GST qualification standards in accordance with FM 3–23.37 every 12 months. The GST consists of BST qualification exercises, FTT qualification exercises, and a range card exercise. There are a total of 40 exercises.

**Table 5–15**  
**Javelin Qualification<sup>1</sup>**

Event	Rnds	FREQ	
		AC	RC
Weapon Training	0	12	2
Gunnery Sustainment	0	12	1
Advanced Tracking	0	6	1
GST Verification/Qualification <sup>2</sup>	0	4	1
<b>Total Rounds per Gunner</b>		<b>0</b>	<b>0</b>

Notes:

<sup>1</sup> No training ammunition is required for any Javelin event. Javelin participates in Sqd/Plt LFX and CALFEX using MILES and the laser target interface device.

<sup>2</sup> Indicates Standard.

*o. TOW Qualification Standard* (See table 5–16). All Soldiers assigned to a TOW section/platoon will meet the GST qualification standards and qualify on tables I–II and tables V–VI in accordance with FM 3–22.34 every three months.

(1) All gunners will qualify on tables III–IV every three months. Eighty-five percent of the assigned TOW squads will have qualified on table X within the past six months. All TOW platoons will have qualified on table XII within the past six months.

(2) Seventy-Five percent of Army Reserve and National Guard Soldiers assigned to a TOW section/platoon will meet the GST qualification standards and qualify on tables I–II and tables V–VI in accordance with FM 3–22.34 within the every 12 months. All gunners will qualify on tables III–IV within the past 12 months. Eighty-five percent of the assigned TOW squads will have qualified on table X within the past 12 months. All TOW platoons will have qualified on table XII within the past 12 months.

(3) TOW ITAS Requirements and doctrine are pending.

**Table 5–16**  
**TOW Qualification (FM 3–22.34)**

Event	Training Device	DODIC		
		L592	AC	FREQ RC
Gunner Skills Test <sup>1</sup>		0	4	1
table I - Individual Practice <sup>1</sup>	TGT	0	4	1
table II - Individual Qualification <sup>1</sup>	TGT	0	4	1
table III - Advanced Practice <sup>1</sup>	TGT	0	4	1
table IV - Advanced Qualification <sup>1</sup>	TGT	0	4	1
table V A/B - Baseline Practice <sup>1</sup>	TFTT	60	4	1

**Table 5-16**  
**TOW Qualification (FM 3-22.34)—Continued**

table VI A/B – Baseline Qualification <sup>1</sup>	TFTT	60	4	1
table VII A/B - Squad Practice	TFTT	20	2	1
table VIII A/B – Squad Qualification	TFTT	20	2	1
table IX A/B - Section Practice	TFTT	12	2	1
table X A/B - Section Qualification <sup>1</sup>	TFTT	12	2	1
table XI A/B - Platoon Practice	TFTT	12	2	1
table XII A/B – Platoon Qualification <sup>1</sup>	TFTT	12	2	1
<b>Total per system for qualification</b>		L592	656	208

Notes:

<sup>1</sup> Indicates Standard.

*p. Hand Grenade Qualification Standard.* (See table 5-17) Qualification requirements for Soldiers assigned to an Infantry or Recon platoon/section differ from CS/CSS Soldiers. Consult the appropriate requirements below. Live grenade throw is not required for qualification. Mock Bay training is required for the live hand grenade throw in accordance with FM 3-23.30.

(1) Infantry/Recon Requirements: Active Army Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 every six months and throw a live grenade annually.

(2) CS/CSS: Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 and throw a live grenade within the past 12 months.

(3) National Guard Infantry; Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 within the past training year and throw a live grenade once every two training years.

**Table 5-17**  
**Hand Grenade (FM 3-23.30)**

				FREQ	
EVENT	DODIC	Rnds	AC IN	CS/CSS	RC
Qualification					
Mock Bay	G878	2	1	1	1
Hand Grenade Qualification Course <sup>1</sup>	G878	6	2	1	1
Total For Qualification					
	G878		14	7	7
Live Grenade Throw	G881	1	1	0.5 <sup>2</sup>	0.5 <sup>2</sup>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

*q. Claymore Mine Qualification Standard.* (See 5-18) Qualification requirements for Soldiers assigned to an Infantry or Scout platoon/section differ from Soldiers not assigned to a rifle or recon platoon/section. Consult the appropriate requirements below.

(1) Infantry/Infantry Scout Requirements: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every three months. Army Reserve and National Guard Requirements will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every 12 months.

(2) CS/CSS Soldiers: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every 12 months. Army Reserve and National Guard Requirements will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every 12 months.

**Table 5–18**  
**M18A1/A2 Claymore Mine**

EVENTS	DODIC	Rnds	AC IN	FREQ	
				CS/CSS	RC
Employment Instruction/Qualification <sup>1</sup>	K139	Inert	4	1	1

Notes:

<sup>1</sup> Indicates Standard.

r. CS Chamber Strategy (See table 5–19)

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 5–19**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	FREQ	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

s. *Mortar Qualification Standard.* Squad leaders, gunners and assistant gunners will have passed the mortar gunner's exam within the past six months with a minimum score of 70 percent in each event (FM 3–22.91). Ninety percent of all section leaders and FDC personnel will have passed the FDC exam (FM 3–22.91) within the past six months. **USAR/NG** Eighty percent of all squad leaders, gunners and assistant gunners will have passed the mortar gunner's exam within the past 12 months with a minimum score of 70 percent in each event (FM 3–22.91). Eighty percent of all section leaders and FDC personnel will have passed the FDC exam (FM 3–22.91) every 12 months.

t. *Demolition Qualification Standard.* (See table 5–20) Training standards for each system are given below. Training resources to support these tasks are given in battalion allotments and company allotments for BCTs (Unit of Action).

(1) Antitank, Antipersonnel Mine standard.

(a) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have employed inert mines to Soldier's Manual standards (tasks: Install/remove the M16A1 AP mine (Korea only), M15 AT mine, M19 AT mine, M21 AT mine and inert US anti-handling devices) every 12 months.

(b) All squads and platoons with an MTP requirement must have met MTP standards (tasks: Install/recover or transfer a hasty protective minefield and Emplace a tactical (ROW) minefield) using inert mines every 12 months. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self destruct capabilities are authorized for training.

(2) Demolition standard.

(a) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI initiating/detonating assembly, Prime explosives with MDI, and Prime explosives with detonating cord) every 12 months.

(b) All squads must have employed inert and live demolitions to MTP standards (task: Breach obstacles) every 12 months.

(3) Bangalore Torpedo standard. All squads must have employed an inert bangalore torpedo to MTP standards (task: Breach obstacles (wire obstacle) within the past 12 months. Infantry Platoons must have also employed a live Bangalore torpedo to MTP standards (task: Breach obstacles (wire obstacle) every 12 months.

(4) MOPMS standard. All squads must have installed and recovered the MOPMS Training Dispenser (M136) to operator's manual standards (task: Emplace a tactical (scatterable) minefield) every 12 months.

**Table 5–20**  
**Infantry Demolition table AC Only**

	Munitions	DODIC	Per Bn
Bangalore Torpedo		M028	15
Booster Demo 10ft Det Cord M151		MN68	1417
Booster Demo 30ft Det Cord M152		MN69	1417
Demolitions - TNT (1 Lb)		M032	
Demolitions - TNT (1/4 Lb)		M030	
Demolitions C4 (1 1/4 Lb)		M023	1236
Detonating Cord (Ft)		M456	8298
Holder M9		ML45	2000
Igniter M81		MN08	450
Non electric Cap M12		MN02	0
Blasting Cap, Non-Elec; 500ft Mini tube, XM21		MN88	60
Non electric Cap M14		MN06	450

Notes:

<sup>1</sup> If C–4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb. package size. table 5–19 combines individual and unit demolition quantities.

*u. Demolitions Army Reserve/NG.* Training standards for each system are the same as the active force, however only eighty percent are required to conduct training every 12 months and there are no live fire requirements or resourcing.

## 5–7. Light Infantry Collective Training for the Active Army

*a.* Collective training requirements in this section contains strategies for Soldiers assigned to an Infantry Rifle or Infantry Recon platoon/section; Soldiers assigned to a TOW section/platoon; Soldiers assigned to a mortar platoon/section; and for CS/CSS Soldiers assigned to an Infantry unit.

*b.* Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

*c.* Collective Training Requirements.

(1) **Rifle/Scout Platoons.** Soldiers assigned to a rifle or Recon platoon/section will participate in a squad sized or higher LFX to standard (ARTEP 7–8 MTP) every three months; participate in a Platoon/Company LFX to standard ARTEP 7–8 MTP every six months participate in an external evaluation to standard (ARTEP 7–8 MTP) every six months.

(2) **TOW Platoons.** Soldiers assigned to a TOW platoon/section will participate in an external evaluation to ARTEP 7–90 Drill standards within the past six months in conjunction with a maneuver company or battalion FTX; participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(3) **Mortar Platoons.** Soldiers assigned to a mortar platoon/section will participate in an external evaluation to ARTEP 7–90 MTP & ARTEP 7–90 Drill standards as part of a company/battalion FTX within the past six months and participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(4) **CS/CSS.** Soldiers not previously addressed will: participate in a Platoon/Company LFX to standard annually; participate in an external evaluation to standard annually. Consult the appropriate CS/CSS ARTEP MTP for standards.

(5) **Urban Operations (UO) Training.** (See table 5–21) TC 90–1 contains training strategies and resource requirements. Resourcing for UO training comes from the collective training ammunition for each weapon. Infantry units are authorized additional UO specific training munitions contained in table 5–20. UO training is not a requirement; however Commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy. The Special Effects Small Arms Marking System (SESAMS) will use two DODICs to differentiate between red and blue; AB09 and AB16 are blue and AB10 and AB17 are red SESAMS requires the use of the Close Combat Capability Kit (CCMCK). SESAMS should not be confused with Short Range Training Ammunition (SRTA). SESAMS is a paintball type round and SRTA is a lethal round with a reduced surface danger zone (SDZ).

**Table 5–21**  
**UO Training Munitions**

Munitions	DODIC	IN Bn
GREM (Live)	GG12	18
GREM –TP (Inert)	GG11	30
5.56mm for GREM-(TP)	G841	150
Stun Grenade (Fuse)	GG19	780
Stun Grenade (Body)	GG18	78
5.56mm SESAMS (per weapon)	AB09/10	280
5.56mm SESAMS Linked (per weapon)	AB16/17	460
Smoke Pot M4A2	K511	4

### 5–8. Light Infantry Collective Training Resourcing tables

*a. M16/M4.* table 5–22 lists Advanced Rifle Marksmanship (ARM) and collective training resourcing for an Active Army Light Infantry Rifle and CS/CSS Soldiers. Commanders will determine the ARM event to be trained from chapter 7 of FM 3–22.9. A080 is listed twice in the table because CS/CSS receive a lower rate for all events. Short Range Training Ammunition (SRTA) has been added to provide flexibility of training options. SRTA requires the M2 bolt assembly to fire.

**Table 5–22**  
**Light Infantry M16/M4 Collective Training**

Event	DODIC				Freq	
	AA33	A059	A063	A080	IN	CS/CSS
Adv Rifle Marksmanship (CH7 FM 3–22.9)	100	~	~	~	2	0
Fire and Move LFX	~	16	4	~	4	0
Sqd/Plt LFX <sup>1</sup>	~	110	20	~	4	1
Plt/Co LFX <sup>1</sup>	~	130	20	~	2	0
CALFEX	~	110	10	~	1	0
Sqd/Plt/Co FTX/STX (IN)	~	~	~	120	4	0
Sqd/Plt/Co FTX/STX (CS/CSS)	~	~	~	40	0	1
Bn FTX (IN)	~	~	~	120	2	0
EXEVAL (ARTEP) <sup>1</sup> (IN)	~	~	~	120	2	0
EXEVAL (ARTEP) <sup>1</sup> (CS/CSS)	~	~	~	40	0	1
<b>Rounds For Advanced Rifle Marksmanship (ARM)/Collective Training</b>						
Ball	AA33				200	0
Short Range Training Ammunition (SRTA) <sup>2</sup>	AA68				90	0
Ball	A059				834	130
Tracer	A063				146	20
Blank	A080				960	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> The requirement for DODIC A059 was reduced by 90 rounds in lieu of 90 rounds of AA68. These 90 Short Range Training Ammunitions (SRTA) can be used during any LFX level.

b. *M249 AR*. table 5–23 lists collective training resourcing for Active Army Light Infantry and CS/CSS Soldiers. A075 is listed twice in the table because CS/CSS receive a higher rate for Sqd/Plt/Co FTX/STX. Short Range Training Ammunition will be added when material released.

**Table 5–23**  
**Light Infantry M249 AR Collective Training**

Event	DODIC		FREQ	
	A064	A075	IN	CS/CSS
<b>Collective Training</b>				
Fire and Move LFX	70	~	4	0
Squad/Platoon LFX <sup>1</sup>	300	~	4	0
Plt/Co LFX <sup>1</sup>	300	~	2	1
CALFEX	200	~	1	0
Sqd/Plt/Co FTX/STX (IN)	~	200	4	0
Sqd/Plt/Co FTX/STX (CS/CSS)	~	300	0	1
Bn FTX	~	300	2	0
EXEVAL (ARTEP) <sup>1</sup>	~	300	2	1
<b>Total Rounds For Collective Training</b>				
Mix	A064		2280	300
Blank	A075		2000	600

Notes:

<sup>1</sup> Indicates Standard.

c. *M249 LMG*. table 5–24 lists collective training resourcing for Active Army Light CS/CSS Soldiers assigned the M249 in the LMG role. The LIN # for the M249 in the LMG role is M39263.

**Table 5–24**  
**Light Infantry M249 LMG Collective Training**

DODIC			
Event	A064	A075	CS/CSS
Collective Training			
Fire and Move LFX	70	~	0
Sqd/Plt LFX	300	~	0
Plt/Co LFX <sup>1</sup>	300	~	1
CALFEX	200	~	0
Sqd/Plt/Co FTX/STX	~	200	1
Bn FTX	~	300	0
EXEVAL (ARTEP) <sup>1</sup>	~	200	1
Total Rounds For Collective Training			
Mix	A064		300
Blank	A075		400

Notes:

<sup>1</sup> Indicates Standard.

d. *12 gauge Shotgun*. table 5–25 lists collective training ammunition to support Infantry shotgun training.

**Table 5–25**

**Active Army Shotgun Ammunition/Training Strategy**

Event	DODIC	Rnds	FREQ
Collective Training	A011	8	2

e. *M240B MG*. table 5–26 lists collective training resourcing for Active Army Light Infantry and CS/CSS Soldiers. A111 is listed twice in the table because CS/CSS receive a lower rate for all events. Short Range Training Ammunition will be added when material released.

**Table 5–26**

**Light Infantry M240B Collective Training**

Event	DODIC		FREQ	
	A131	A111	IN	CS/CSS
Sqd/Plt LFX <sup>1</sup>	300	~	4	0
Plt/Co LFX <sup>1</sup>	300	~	2	1
CALFEX	200	~	1	0
Sqd/Plt/Co FTX/STX (IN)	~	400	4	0
Sqd/Plt/Co FTX/STX (CS/CSS)	~	200	0	1
Bn FTX	~	400	2	0
EXEVAL (ARTEP) <sup>1</sup> (IN)	~	400	2	0
EXEVAL (ARTEP) <sup>1</sup> (CS/CSS)	~	200	0	1
<b>Total Rounds For Collective Training</b>				
Mix	A131		2000	300
Blank	A111		3200	400

Notes:

<sup>1</sup> Indicates Standard.

f. *M203*. table 5–27 lists collective training resourcing for Active Army Light Infantry and CS/CSS Soldiers.

**Table 5–27**

**Light Infantry M203 Collective Training**

Event	DODIC			FREQ	
	B519	BA03 <sup>2</sup>	B535	IN	CS/CSS
Sqd/Plt LFX <sup>1</sup>	18		0	4	0
Sqd/Plt LFX <sup>1</sup> (CS/CSS)	4	0	0	0	1
Plt/Co LFX <sup>1</sup>	18		5	2	0
CALFEX	12		0	1	0
<b>Total Rounds For Collective Training</b>					
	IN/Recon		CS/CSS		
B519 (TP)	120		4		
B535 (WSP)	10		0		

**Table 5–27**  
**Light Infantry M203 Collective Training—Continued**

BA03 (IR) <sup>2</sup>	15	0
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Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> The 15 rounds of BA03 can be used by the commander during any of the live fire events listed above.

*g. M24 Sniper Rifle.* table 5–28 lists collective training resourcing for Active Army Light Infantry.

**Table 5–28**  
**Light IN M21/24 Collective Training**

Event	DODIC		IN
	A112	AA11	
STX	10		12
Bn FTX	20		2
EXEVAL <sup>1</sup>	20		1
LFX <sup>1</sup>		10	6
CALFEX		10	1
Rounds For Collective Training			
	DODIC		Rnds
Ball	AA11		70
Blank	A112		180

Notes:

<sup>1</sup> Indicates Standard.

*h. M107 Anti-Material Sniper Rifle.* table 5–29 lists collective training resourcing for Active Army Light Infantry. The XM1022 will replace A552 when fielded.

**Table 5–29**  
**Light IN M107 .50 Cal**

Event	DODIC			FREQ
	A598	A552	A606	
STX	10			4
Bn FTX/EXEVAL <sup>1</sup>	10			2
LFX <sup>1</sup>		10		2
CALFEX			10	1
Rounds For Collective Training				
	DODIC			Rounds
Ball	A552			20
HEAPI	A606			10
Blank	A598			60

Notes:

<sup>1</sup> Indicates standard.



i. *M2 .50 Cal MG.* table 5–30 lists collective training resourcing for Active Army Light Infantry and CS/CSS Soldiers. Short Range Training Ammunition (SRTA) requires the use of the M2 recoil amplifier.

**Table 5–30**  
**Light IN M2 .50 Cal Collective Training**

Event	DODIC		FREQ	
	A557 <sup>2</sup>	A598	IN/Recon	CS/CSS
Squad/Platoon/Co LFX <sup>1</sup>	75		4	0
Plt/Co LFX <sup>1</sup>	75		2	1
CALFEX	100		1	0
Sqd/Plt/Co FTX/STX		100	4	1
Bn FTX		100	2	0
EXEVAL <sup>1</sup>		100	2	1
<b>Rounds For Collective Training</b>				
Mix	A557		550	75
Short Range Training Ammunition (SRTA) <sup>2</sup>	A602		150	0
Blank	A598		800	200

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> The 150 rounds of A602 (SRTA) can be used at the commander's discretion during any of the live fire events listed above. These rounds are in addition to what is allocated for A557.

j. *MK–19 GMG.* table 5–31 lists collective training resourcing for Soldiers assigned to Infantry Rifle, Infantry Recon Platoons, and CS/CSS Soldiers.

**Table 5–31**  
**Light IN MK–19 GMG Collective Training**

Event	DODIC	FREQ	
	B584	IN/Recon	CS/CSS
Sqd/Plt/Co LFX	30	4	1
Plt/Co LFX <sup>1</sup>	0	2	0
CALFEX	24	1	0
	<b>Total For Collective Training</b>		
	B584	144	30

Notes:

<sup>1</sup> Indicates Standard.

k. *Claymore Mine.* table 5–32 lists annual collective training resourcing for Soldiers assigned to Infantry Rifle, Infantry Recon Platoons, and CS/CSS Soldiers.

**Table 5–32**  
**Light IN Claymore Collective Training**

Event	DODIC <sup>2</sup>	Rnds	IN/Recon	CS/CSS
Sqd/Plt/Co FTX/STX	Inert	N/A	4	1
Bn FTX	Inert	N/A	2	1
EXEVAL <sup>1</sup>	Inert	N/A	1	1
LFX per IN/Scout Sqd <sup>1</sup>	K143	1	4	0
LFX Per All Other Plt <sup>1</sup>	K143	1	0	1
<b>Claymore Mines Per Infantry Sqd</b>	<b>K143</b>		<b>4</b>	
<b>Claymore Mines Per CS/CSS Plt</b>	<b>K143</b>			<b>1</b>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> K143 w/ accessories ~ K145 w/o accessories.

*l. Hand Grenade.* table 5–33 lists collective training resourcing for Soldiers assigned to Infantry Rifle, Infantry Recon Platoons, and CS/CSS Soldiers.

**Table 5–33**  
**Light IN Hand Grenade Collective Training**

Collective Training	FREQ			
	DODIC <sup>1</sup>	Rnds	IN/Recon	CS/CSS
	G878	Per Squad		
Sqd/Plt LFX <sup>2</sup>		6	4	0
Plt/Co LFX <sup>2</sup>		6	2	0
<b>Total For Collective Training</b>	<b>G878</b>		<b>36</b>	<b>0</b>

Notes:

<sup>1</sup> LFX utilizes inert hand grenade body & M228 (G878) fuze.

<sup>2</sup> Indicates Standard.

*m. M136 (AT–4).* table 5–34 lists collective training resourcing for Soldiers who have qualified on the AT–4 assigned to Infantry Rifle, Infantry Recon Platoons, and CS/CSS Soldiers. The EST 2000 can be used to train additional Soldiers not resourced in this table.

**Table 5–34**  
**Light IN AT–4 Collective Training**

Event	Type <sup>1</sup>		FREQ	
	ATWESS	M136	IN/Recon	CS/CSS
Sqd/Plt/Co FTX	6		2	2
EXEVAL (ARTEP) <sup>2</sup>	6		2	1
Live Rocket		3	1	0
<b>Total per AT–4 Gunner</b>				
<b>DODIC</b>				
ATWESS	L367		24	18
M136 per squad	C995		3	0

Notes:

<sup>1</sup> Only 3 soldiers per Infantry squad and 10 percent of CS/CSS Soldiers E–5s and below are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for soldiers qualified on the AT–4.

<sup>2</sup> Indicates Standard.

n. *M47 Dragon*. table 5–35 lists collective training resourcing for Soldiers assigned to Infantry Rifle and Recon Platoons. One live missile is authorized per company.

**Table 5–35**

**Dragon Collective Training**

Event	ATWESS	FREQ
Sqd/Plt/Co FTX/STX	6	8
EXEVAL (ARTEP) <sup>1</sup>	6	2
Sqd/Plt LFX <sup>1</sup>	6	2
CALFEX Live Missile		1
<b>Total for Collective Training</b>		
	<b>DODIC</b>	<b>Total</b>
	L367	72
Dragon Missile per Company	PL22/PL23	1/Co

Notes:

<sup>1</sup> Indicates Standard.

o. *Javelin*. The Javelin does not utilize pyrotechnics or ammunition for collective training events. One live Javelin missile is authorized per company, if available.

p. *M220 TOW*. table 5–36 lists collective training resourcing for Soldiers assigned the TOW weapon system. One live missile is authorized per launcher each year. TOW ITAS doctrine and requirements have not been determined.

**Table 5–36**

**Light Inf TOW Collective Training**

Event	M80 (L592)	ATWESS (L367)	Smoke (G978)	FREQ
Sqd/Sec/Plt STX	14			6
Co/Plt FTX		14	8	2
BN FTX		14	8	2
EXEVAL (ARTEP) <sup>1</sup>	14		8	1
Live Missile				1
<b>Total for Collective Training</b>				
	<b>DODIC</b>	<b>Rnds</b>		
M80	L592	98		
ATWESS	L367	56		
Smoke	G978	40		
TOW Missile per weapon system	WH05	1		

Notes:

<sup>1</sup> Indicates Standard.

q. *Mortar Training*. tables 5–37 thru 5–39 lists the collective training resourcing for the 60, 81 and 120mm mortar. Full Range Training Rounds (FRTR) will replace all of the Short Range Training Rounds (SRTR). The Stryker Brigade Combat Teams (SBCT) will not use these tables; refer to the SBCT collective training section of this chapter.

**Table 5–37**  
**Active Army 60mm Mortar Strategy**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Mortar Crew/Section Training			0	20	4
Section EXEVAL Training W/FRTR	13	4	8	30	1
Section EXEVAL Training	13	4	8	30	1
ARTEP LFX <sup>1</sup>	12	4	8	30	2
CALFEX	24	2	3		1
Total Rounds per Tube					
	DODIC				Rnds
HEPD	BA17				50
HE w/MOF	BA16				24
WP	BA14				18
Illum Visible	B647				18
Illum IR	BA04				17
FRTR	BA15				200
Notes:					
<sup>1</sup> Indicates Standard.					

**Table 5–38**  
**Active Army 81mm Mortar Strategy**

Event	Type				FREQ
	HE	RP	Illum	FRTR	
Mortar Crew/Section Training			0	20	4
Section EXEVAL Tng W/FRTR	13	4	8	30	1
Section EXEVAL Tng	13	4	8	30	1
ARTEP LFX <sup>1</sup>	12	4	8	30	2
CALFEX	24	2	3		1
Total Rounds per Tube					
	DODIC				Rnds
HEPD	C869				50
HE w/MOF	C868				24
RP	C870				18
Illum Visible	C871				18
Illum IR	C484				17
FRTR	C875				200
Notes:					
<sup>1</sup> Indicates Standard.					

**Table 5–39**  
**Active Army 120mm Mortar**

Training Schedule					
Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/Sec/Plt Training				20	4
EXEVAL Training	12	6	4	22	1
EXEVAL	10	6	6	24	1
ARTEP LFX <sup>1</sup>	12	8	6	20	2
CALFEX	16	7	8	20	1
Total Rounds per Tube					
	DODIC				Rnds
HE w/MOF	CA04				16
HEPD	C623				46
WP	CA03				35
Illum	C625				16
IR Illum	CA07				14
FRTR	CA09				186
Notes:					
<sup>1</sup> Indicates Standard.					

*r. Pyrotechnics for Light Infantry.* table 5–40 lists pyrotechnics for Infantry battalions and BCT (Unit of Action) companies.

**Table 5–40**  
**Pyrotechnics**

Nomenclature	DODIC	IN Bn Amount	BCT Co Amount
HG Smk GRN	G940	66	22
HG Smk YEL	G945	114	38
HG Smk RED	G950	42	14
HG Smk VIOL	G955	56	19
HG Smk CS	G963	32	11
HG Smk HC	G982	62	21
Riot Cntrl Agent	K768	4	1
Smk Pot Flt, M4A2	K511	6	2
Sig Illum	L305	34	11
Sig Illum	L306	40	13
Sig Illum	L307	40	13
Sig Illum	L311	30	10
Sig Illum	L312	42	14
Sig Illum	L314	64	21
Flare Surface Trip	L495	54	18
Sim Proj Grnd Brst	L594	338	113
Sim Proj Air Brst	L595	2 <sup>1</sup>	1 <sup>1</sup>
Sim Boobytrap Flash	L598	36	12
Sim Boobytrap Illum	L599	48	16

**Table 5-40**  
**Pyrotechnics—Continued**

Sim Boobytrap Whis	L600	62	21
Sim Hand grenade	L601	220	73

Notes:

<sup>1</sup> Denotes one kit of 20 each simulators.

### 5-9. Army National Guard Light Infantry Individual Weapon Qualification Requirements

ARNG Soldiers will meet the same standard as Active Army Soldiers; however the qualification frequency is every 12 months. Qualification events are categorized by ancillary optics/NVDs assigned. Only Soldier's assigned additional optics/NVDs are authorized to conduct the qualification event listed for that device. Refer to Light Infantry Weapon Qualification, paragraph 5-6. Upon mobilization, NG/USAR Soldiers will be resourced at active Army levels and required to meet the training requirements for the active Army.

### 5-10. National Guard Light Infantry Collective Training Requirements

a. Collective training requirements in paragraph 5-10c, contain strategies for Soldiers assigned to an Infantry Rifle or Infantry Recon Platoon/Section; Soldiers assigned to a TOW Platoon/Section; Soldiers assigned to a Mortar Platoon/Section; and CS/CSS Soldiers.

b. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

c. Collective Training Requirements.

(1) **Rifle/Recon Platoons.** Soldiers assigned to a Rifle or Recon Platoon/Section will participate in a squad sized or higher FTX/STX to standard (ARTEP 7-8 MTP) every 12 months and participate in an external evaluation to standard (ARTEP 7-8 MTP) every 24 months.

(2) **TOW Platoons.** Soldiers assigned to a TOW Platoon/Section will participate in an external evaluation to ARTEP 7-91 MTP & ARTEP 7-91 Drill standards every 12 months.

(3) **Mortar Platoons.** Soldiers assigned to a Mortar Platoon/Section will participate in an external evaluation to ARTEP 7-90 MTP & ARTEP 7-90 Drill standards every 12 months.

(4) **CS/CSS.** Soldiers not previously addressed will: participate in an external evaluation to standard every 24 months. Consult the appropriate ARTEP MTP for standards.

(5) **Urban Operations (UO) Training.** (See table TC 90-1) provides suggested training strategies and resource requirements. Resourcing comes from the collective training ammunition resourced for each weapon. Additional UO specific resourcing is provided in table 5-40 below. UO training is not a requirement; however commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy. The Special Effects Small Arms Marking System (SESAMS) will use two DODICs to differentiate between red and blue; AB09 and AB16 are blue and AB10 and AB17 are red.

**Table 5-41**  
**UO Training Munitions Expressed in Battalion Lots <sup>1</sup>**

Munitions	DODIC	Amount
GREM (Live)	GG12	6
GREM-TP (Inert)	GG11	10
5.56mm for GREM-TP	G841	50
M84 Stun Grenade (Fuse)	GG19	260
M84 Stun Grenade (Body)	GG18	26
5.56mm SESAMS (per weapon)	AB09/10	280
5.56mm SESAMS Linked (per weapon)	AB16/17	460
Smoke Pot M4A2	K511	1

Notes:

<sup>1</sup> Ammunition expressed in battalion lots except for SESAMS.

## 5–11. National Guard Light Infantry Battalion Collective Training Resourcing tables

The weapon tables below list collective training resourcing for Soldiers assigned to a BCT Infantry Rifle/Recon Platoon, an Infantry Rifle/Recon Platoon, BCT CS/CSS Soldiers and CS/CSS Soldiers.

*a. M16/M4 NG/USAR Collective Training.* table 5–42 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit. A080 is listed twice because CS/CSS are resourced at a lower rate.

**Table 5–42**  
**M16/M4 NG/USAR Collective Training**

Event	DODIC			FREQ		FREQ	
	A059	A063	A080	IN	BCT IN	A080	CS/ CSS BCT CS/CSS
Fire & Move LFX	16	4		1	1		0 0
Sqd/Plt LFX	130	20		1	1		0 0
Plt/Co LFX	130	20		0	0		0 0
CALFEX	120	10		0	0		0 0
Sqd/Plt/Co FTX/STX <sup>1</sup>			120	1	2	40	1 1
Bn FTX			120	0	0	40	0 0
EXEVAL (ARTEP) <sup>1,2</sup>			120	0.5	1	40	0.5 1
<b>Rounds For Collective Training</b>							
Ball	A059			146	146		0 0
Tracer	A063			24	24		0 0
Blank	A080			120/240	360		80/40 80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

*b. M249AR NG/USAR Collective Training.* table 5–43 lists collective training resourcing for Soldiers assigned to an ARNG Light Infantry Rifle/Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–43**  
**M249AR NG/USAR Collective Training**

DODIC				FREQ		
Event	A064	A075	IN	CS/CSS	BCT IN	BCT CS/CSS
Collective Training						
Fire and Move LFX	70		1	0	1	0
Sqd/Plt LFX	300		1	0	1	0
Plt/Co LFX	300		0	0	0	0
CALFEX	200		0	0	0	0
Sqd/Plt/Co FTX/STX <sup>1</sup>		200	1	1	2	1
Bn FTX		300	0	0	0	0
EXEVAL (ARTEP) <sup>1,2</sup>		300	0.5	0.5	1	1
Rounds For Collective Training						
Mix	A064		370	0	370	0
Blank	A075		200/500	200/500	700	500

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

c. *M249 LMG ARNG Collective Training.* table 5–44 lists collective training resourcing for Soldiers assigned to a National Guard Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit. The LIN # for the M249 LMG is M39263. No LMGs are assigned to Infantry platoons.

**Table 5–44**  
**M249 LMG NG/USAR Collective Training**

Event	DODIC		FREQ	
	A064	A075	CS/CSS	BCT CS/CSS
Sqd/Plt LFX	300		0	1
Plt/Co LFX	300		0	0
CALFEX	300		0	0
Sqd/Plt/Co FTX/STX <sup>1</sup>		400	1	1
Bn FTX		400	0	0
EXEVAL (ARTEP) <sup>1</sup>		400	1	1
<b>Total Rounds for Collective Training</b>				
Mix	A064		0	300
Blank	A075		800	800

Notes:

<sup>1</sup> Indicates Standard.

d. *M240B MG NG/USAR Collective Training.* table 5–45 lists collective training resourcing for Soldiers assigned to an ARNG Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–45**  
**M240B NG/USAR Collective Training**

Event	DODIC			FREQ		
	A131	A111	IN	CS/CSS	BCT IN	BCT CS/CSS
Sqd/Plt LFX	300		1	0	1	0
Plt/Co LFX	300		0	0	0	0
CALFEX	200		0	0	0	0
Sqd/Plt/Co FTX/STX <sup>1</sup>		400	1	0	1	1
Bn FTX		400	0	0	0	0
EXEVAL (ARTEP) <sup>1</sup>		400	0.5	0.5	1	1
<b>Total Rounds For Collective Training</b>						
Mix	A131		300	0	300	0
Blank	A111		400/800	0/400	800	800

Notes:

<sup>1</sup> Indicates Standard.

e. *M203 GL NG/USAR Collective Training.* table 5–46 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.



**Table 5–46**  
**ARNG M203 Collective Training <sup>1</sup>**

Event	DODIC		FREQ	
	B519	B535	IN/Recon	CS/CSS
Sqd/Plt LFX	18	5	1	0
Plt/Co LFX	18	5	0	0
CALFEX	12	0	0	0
<b>Total Rounds for Collective Training</b>				
B519 (TP)			18	0
B535 (WSP)			5	0

Notes:

<sup>1</sup> No distinction made for BCT Brigade collective training.

*f. M24 Sniper Rifle NG/USAR Collective Training.* table 5–47 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon.

**Table 5–47**  
**NG/USAR M21/24 Collective Training**

Event	DODIC	Rnds	FREQ	
			Non-BCT	BCT
STX <sup>1</sup>	A112	10	2	4
Bn FTX	A112	20	0	0
EXEVAL <sup>1</sup>	A112	20	1	1
LFX	A171	10	1	1
CALFEX	A171	10	0	0
<b>Total Rounds For Collective Training</b>				
Ball	A171		10	10
Blank	A112		40	60

Notes:

<sup>1</sup> Indicates Standard.

*(1) M107 Anti-Material Rifle NG/USAR Collective Training.* table 5–48 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon. Note, the XM1022 round will replace A552 in the training strategy when fielded.

**Table 5–48**  
**NG/USAR .50 Cal Anti-Material Weapon Collective Training**

Event	DODIC	Rnds	FREQ	
			IN	BCT
STX <sup>1</sup>	A598	10	1	2
Bn FTX/EXEVAL <sup>1</sup>	A598	10	1	1
LFX	A552	10	1	1
CALFEX	A606	10	0	0
<b>Total Rounds For Collective Training</b>				
Ball	A552		10	10
HEAPI	A606		0	0

**Table 5–48**  
**NG/USAR .50 Cal Anti-Material Weapon Collective Training—Continued**

Blank	A598	20	30
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Notes:

<sup>1</sup> Indicates Standard.

(2) *M2 .50 Cal MG NG/USAR Collective Training.* table 5–49 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–49**  
**M2 .50 Cal MG NG/USAR<sup>1</sup>**

Event	DODIC	Rnds	IN/Recon	CS/CSS	FREQ	
					BCT IN/Recon	BCT CS/CSS
Sqd/Plt/Co LFX	A557	100	0	0	1	0
Plt/Co LFX	A557	100	0	0	0	0
CALFEX	A557	100	0	0	0	0
Sqd/Plt/Co FTX/STX	A598	100	1	0	1	1
Bn FTX	A598	100	0	0	0	0
EXEVAL	A598	100	1	1	1	1
<b>Total Rounds For Collective Training</b>						
Mix	A557		0	0	100	0
Blank	A598		200	100	200	200

Notes:

<sup>1</sup> Indicates Standard.

(3) *MK–19 GMG NG/USAR Collective Training.* table 5–50 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–50**  
**NG/USAR MK–19 GMG Collective Training**

Event	DODIC		FREQ	
	B584	IN/Recon	CS/CSS	BCT IN/Recon
Squad/Platoon/Co LFX	30	0	0	1
Platoon/Co LFX	0	0	0	0
CALFEX	24	0	0	0
<b>Total Rounds For Collective Training</b>				
		0	0	30

g. *Claymore Mine NG/USAR Collective Training.* table 5–51 lists collective training resourcing for Soldiers assigned to a NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–51**  
**NG/USAR Claymore Collective Training**

Event	Type	Rnds	IN/Recon	FREQ		
				CS/CSS	BCT IN/Recon	BCT CS/CSS
Sqd/Plt/Co FTX/STX <sup>1</sup>	Inert	N/A	1	1	1	1
Bn FTX	Inert	N/A	0	0	0	0
EXEVAL <sup>1</sup>	Inert	N/A	1	1	1	1
LFX per IN/SCT Sqd	M18A1/A2	1	0	0	0.5	0
LFX Per All Other Plt	M18A1/A2	1	0	0	0	0
Claymore Mines Per Squad			0	0	1 every two years	0
Claymore Mines Per Plt				0	0	0

Notes:

<sup>1</sup> Indicates Standard.

*h. Hand Grenade NG/USAR Collective Training.* table 5–52 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–52**  
**NG/USAR Hand Grenade Collective Training**

Event	DODIC	Rnds	IN/Recon	CS/CSS	FREQ	
					BCT IN/Recon	BCT CS/CSS
	G878	M228 Per Squad				
Sqd/Plt LFX		6	1	0	1	0
Plt/Co LFX		6	0	0	0	0
EXEVAL <sup>1</sup>		6	0	0	1	0
<b>Total Rounds For Collective Training</b>						
	G878		6	0	12	0

Notes:

<sup>1</sup> Indicates Standard.

*i. M136 (AT–4 NG/USAR Collective Training.* table 5–53 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–53**  
**NG/USAR AT–4 Collective Training<sup>2</sup>**

Event	Type		IN/Recon	CS/CSS	FREQ	
	ATWESS	M136			BCT IN/Recon	BCT CS/CSS
Sqd/Plt/Co FTX <sup>1</sup>	6		1	0	1	0
EXEVAL (ARTEP) <sup>1</sup>	6		1	0	1	0
Live Rocket		1	0	0	0	0
<b>Total per AT–4 Gunner</b>						
	<b>DODIC</b>				<b>Rnds</b>	
ATWESS	L367		12	0	12	0

**Table 5–53**  
**NG/USAR AT–4 Collective Training<sup>2</sup>—Continued**

M136 per squad	C995	0	0	1	0
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Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Only 2 Soldiers per Infantry squad and 10 percent of E–5s and below for "CS/CSS" are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for Soldiers qualified on the AT–4.

*j. M47 Dragon NG/USAR Collective Training.* table 5–54 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon, and CS/CSS Soldiers assigned to an Infantry unit.

**Table 5–54**  
**NG/USAR Dragon Collective Training**

Event	Type	FREQ	
	ATWESS	Non-BCT	BCT
Sqd/Plt/Co FTX/STX <sup>1</sup>	6	1	1
Bn FTX	6	0	1
EXEVAL (ARTEP) <sup>1</sup>	6	0	1
Sqd/Plt LFX	6	0	1
CALFEX Live Missile		0	0
<b>Total Rounds for Collective Training</b>			
		Rnds	
		DODIC	
		L367	24
Dragon Missile per Battalion	PL22/PL23	0	1

Notes:

<sup>1</sup> Indicates Standard.

*k. M220 TOW NG/USAR Collective Training.* table 5–55 lists collective training resourcing for Soldiers assigned to an NG/USAR Light Infantry Rifle or Recon Platoon in BCT Brigades or regular NG/USAR brigades.

**Table 5–55**  
**NG/USAR TOW Collective Training**

Event	M80	Type		FREQ	
		ATWESS	Smoke	Non-BCT	BCT
Sqd/Sec/Plt STX <sup>1</sup>	14			2	4
Co/Plt FTX		14	8	0	0
EXEVAL (ARTEP) <sup>1</sup>		14	8	1	1
Live Missile				0	1
<b>Total for Collective Training</b>					
		Rnds			
		DODIC			
M80	L592			28	56
ATWESS	L367			14	14
Smoke	G978			8	8
TOW Missile per Plt	WH05			0	1

Notes:

<sup>1</sup> Indicates Standard.

l. *Mortar Training NG/USAR Collective Training.* table 5–56 thru table 5–58 lists collective training resourcing for 60, 81 and 120mm mortars. Short Range Training Rounds (SRTR) are no longer being procured. Full Range Training Rounds (FRTR) will replace (SRTR).

**Table 5–56**  
**NG/USAR 60mm Mortar Strategy**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Mortar Crew/Section Training			0	30	1
Section EXEVAL Tng W/FRTR		4	8	34	1
ARTEP LFX <sup>1</sup>	18	4	8	16	1
<b>Total Rounds per Tube</b>					
	<b>DODIC</b>				<b>Rnds</b>
HEPD	BA17				18
WP	BA14				8
Illum Visable	B647				8
Illum IR	BA04				8
FRTR	BA15				80

Notes:  
<sup>1</sup> Indicates Standard.

**Table 5–57**  
**NG/USAR 81mm Mortar Strategy**

Event	Type				FREQ
	HE	RP	Illum	FRTR	
Mortar Crew/Section Training			0	30	1
Section EXEVAL Training W/FRTR		7	5	34	1
ARTEP LFX	18	7	5	16	1
<b>Total Rounds per Tube</b>					
	<b>DODIC</b>				<b>Rnds</b>
HEPD	C869				18
WP	C870				14
Illum Visable	C871				5
Illum IR	C484				5
FRTR	C875				80

Notes:  
<sup>1</sup> Indicates Standard.

**Table 5–58**  
**ARNG 120mm Mortar**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/Sec/Plt Training 120mm				26	1
EXEVAL training		10	9	24	1
EXEVAL LFX	18	10	9	26	1
Total Rounds per Tube					
	DODIC				Rnds
120 HEPD	C623				18
120mm FRTR	CA09				76
120 WP	CA03				20
120 Illum	C625				9
120mm IR Illum	CA07				9
Notes:					
¹ Indicates Standard.					

*m.* table 5–59 lists pyrotechnics to support NG/USAR training.

**Table 5–59**  
**ARNG Pyrotechnics Expressed in Annual Company Lots**

Nomenclature	DODIC	Amount
HG Smk GRN	G940	13
HG Smk YEL	G945	13
HG Smk RED	G950	6
HG Smk VIOL	G955	5
HG Smk CS	G963	5
HG Smk HC	G982	12
Riot Cntrl Agent	K768	1
Smk Pot Flt, M4A2	K511	1
Sig Illum	L305	4
Sig Illum	L306	6
Sig Illum	L307	5
Sig Illum	L311	4
Sig Illum	L312	7
Sig Illum	L314	7
Flare Surface Trip	L495	6
Sim Proj Grnd Brst	L594	59
Sim Proj Air Brst	L595	0
Sim Boobytrap Flash	L598	6
Sim Boobytrap Illum	L599	5
Sim Boobytrap Whis	L600	6
Sim Hand grenade	L601	47

## 5-12. SBCT Infantry

This section contains TADSS information, weapon qualification, collective training and resource requirements for SBCT units. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000.

## 5-13. SBCT TADSS

This section contains SBCT specific TADSS. The SBCT also utilizes most TADSS listed in the paragraph 5-5 Light Infantry TADSS.

*a. MILES Maneuver Combat Training Center (MCTC) Platform Integration:* Provides platform integration software upgrades that allow Stryker equipped units to participate in training at the Combat Training Centers (CTCs).

*b. Vehicle Instrumentation and Interface Package:* VIIP provides the communications interface between Stryker vehicles and the instrumentation systems at CTC. In conjunction with the MILES XXI Stryker kit, the CTC instrumentation system allows for real-time tracking, status and control capability. This provides Brigade commanders and training exercise managers exercise oversight and capability for comprehensive After Action Review (AAR) production.

*c. Remote Weapon Station Trainer (RWST):* The RWS Trainer is a training device that trains Vehicle Commanders and Gunners of Stryker variants equipped with the M2 or MK19 RWS in both initial and sustainment gunnery skills. This is a desktop training device that has the same flat screen panel and joystick that is resident in the Stryker RWS.

*d. MK-19 Tactical Engagement Simulation System (TESS):* MK-19 TESS is an interim MILES solution for the MK-19 grenade machine gun (GMG) that supports force on force training. It is a direct line of sight (LOS) solution that can operate either mounted or dismounted. It was specifically developed to support the SBCTs because of the large number of vehicles equipped with the MK-19. It was not developed to meet the MK-19 force on force requirements for the Army. This training device will be replaced when One TESS is fielded to the Army.

*e. Conduct-of-Fire Trainer (COFT).* The COFT (for MGS) and the Advanced Gunnery Training System (AGTS) (for MGS) enable the training of vehicle commander and gunner teams on simulated target engagements in the virtual environment. The simulator provides training on engagements equivalent to those found in the FM 3-20.13 series gunnery tables as well as more advanced training scenarios. COFT/AGTS Minimum Proficiency Level Goals for Active Component are listed in (1) through (4) below and those for Reserve Component (5).

*f. Mobile Gun System (MGS), Advanced Gunnery Training System (AGTS).* The AGTS is an institutional stand alone COFT like simulator that provides realistic simulation for gunners and commanders in precision and degraded gunnery modes.

*g. Mobile Gun System, Thru-Sight Video (TSV).* TSV is a vehicle-appended system that records crew audio and the gunner's sight picture on MGS and RECCE vehicles. The system consists of an on-vehicle video and audio recording package and an off-vehicle AAR substation. The system makes a video recording of the gunner's sight picture. It shows the date and time and marks the video at the instant the trigger is activated.

*h. Mobile Gun System, Full-crew Interactive Simulation Trainer (FIST).* FIST is an umbilical gunnery-training device that provides Stryker MGS crews virtual simulation gunnery training for precision and degraded mode gunnery tasks using the MGS switches and controls. The FIST will be replaced with the MGS Embedded Training Solution in the future.

*i. Mobile Gun System Tactical Engagement Simulation System (TESS).* Provides gunnery tactical engagement simulation, force on force tactical engagement simulation and through site video for the Stryker Mobile Gun System (MGS).

*j. Mobile Gun System, Tank Weapons Gunnery Simulation System (TWGSS).* TWGSS is a vehicle-appended precision gunnery training system that simulates main gun and coax machinegun firing for the MGS Platoon. It interfaces with the vehicle fire control system and permits precision and degraded-mode gunnery training. A simulated tracer and impact burst is superimposed in the sights as the actual round would fly and impact. TWGSS collects actual Gunner / TC gunnery events to be utilized during the individual AAR. TWGSS is interoperable with PGS, MILES, TSV, LTIDS and ITIGS. TWGSS also provides target-tracking training, 1/2 and 1/10 scale gunnery training and should be used for force on force training to reinforce gunnery skills learned during gunnery training.

*k. Caliber .50 Tank Inbore Sub caliber Device.* The Caliber .50 Tank Inbore Sub caliber Device is used MGS systems to engage full-scale and half-scale targets on a full-scale range. This device consists of a bolt-action, single-shot, rifle-type breech mechanism, which attaches to a modified M2 machine gun barrel that mounts inside a 105mm/120mm-gun tube. The ammunition for the inbore device is the SLAP-T round (DODIC: AA38) which may be found in platoon level tables VI, VII, IX and XI. Primarily, this device is to be used by units without TWGSS or where remedial training is better facilitated using this device.

*l. Maintenance Trainer.* The maintenance trainer sets allow personnel to fully experience the system to be maintained without ever leaving the classroom. Allows Soldiers move at his own pace along data paths to understand and comprehend system relationships and data flows, and learn at a faster rate, to permit training more students at fewer sites and with fewer instructional personnel, resulting in better training at a lower cost. The infantry carrier

variants will be supported by a Maintenance Trainer that is designed to train entry level skills for vehicle mechanics to include: system operation, use of special test equipment, fault isolation, fault diagnosis, troubleshooting, adjustments, removal and replacement, and repair tasks.

*m. Vehicle Driver Trainer.* The ICV Driver Trainer provides initial and transition driver training for ICV systems crewman. Device consists of a driver training station, instructor/operator station, visual system, aural/audio system, computer system, and a fully integrated motion system. A real time color computer image generation sub-system provides visual scenes to the driver through the periscope or on a screen for out-of-hatch training. Instructor station is capable of selecting a visual scene, viewing it, monitoring each trainee's performance, and introducing malfunctions and emergency control situations.

#### 5-14. Active Army SBCT Infantry Individual Weapon Qualification Requirements

SBCT specific requirements are addressed in this section. Individual weapon qualification requirements are the same as those listed in paragraph 5-6 for Light Infantry. Qualification events are categorized by ancillary optics/NVDs assigned. Only Soldiers assigned additional optics/NVDs are authorized to conduct the qualification event listed for that device.

*a. Squad Designated Marksman (SDM).* table 5-60 applies only to Infantry Soldiers assigned to an Infantry Rifle Platoon and designated as SDM. Ninety percent of the designated SDM will meet the certification standards in FM 3-22.9 within the past six months.

<b>Table 5-60</b>			
<b>Active Army SBCT M16/M4 SDM Certification (FM 3.22-9)</b>			
<b>Event</b>	<b>Type</b>	<b>Rnds</b>	<b>FREQ</b>
Phase I Position Evaluation		0	4
<b>Phase II Dry-Fire Training</b>			
Zero/Zero Confirmation	Ball	18	2
<b>Phase III Range Estimation &amp; Sight Manipulation 100-500m</b>			
KD Range	Ball	20	2
<b>Phase IV Hold-Off 100-500m</b>			
KD Range (Hold-Off)	Ball	20	2
<b>Phase IV Field Fire 100-500m</b>			
Record Fire I	Ball	20	2
Record Fire II	Ball	20	2
<b>Total Rounds for Individual Certification</b>			
<b>DODIC</b>			
	Ball	AA33	196

*b. M16/M249 AR Reflexive Fire Qualification.* table 5-61 applies only to Infantry Soldiers assigned to an Infantry Rifle or Infantry Recon Platoon. Ninety percent of Soldiers assigned to an Infantry or Recon platoon will qualify within the past six months. Reflexive fire qualification is conducted on table 7-5 in Chapter 5 of FM 3-22.9. Reflexive fire qualification is required prior to LFX training in a Shoot house.



**Table 5–61**  
**Active Army SBCT Reflexive Fire Qualification**

Event	DODIC	Rnds	FREQ
<b>M16/M4 table</b>			
Advanced Rifle Marksmanship	AA33	100	2
<b>Reflexive Fire Qualification</b>			
table 7–3	AA33	80	2
table 7–4	AA33	80	2
table 7–5	AA33	180	2
<b>Total for ARM</b>	<b>AA33</b>		<b>880</b>
<b>M249 AR table</b>			
<b>Reflexive Fire Qualification</b>			
table 7–3	A062	180	2
table 7–4	A062	120	2
table 7–5	A062	135	2
<b>Total for Qualification</b>			<b>870</b>

*c. Stryker MK–19 Remote Weapon Station (RWS), Qualification.* table 5–62. Ninety percent of the vehicle commanders equipped with the MK–19 RWS will pass the Stryker Gunnery Skills Test within the past three months; receive a “Go” on qualification in accordance with FM 3–22.3; Stryker Gunnery within the past six months.

**Table 5–62**  
**Stryker MK19 Qualification**

Event	DODIC	Rnds	FREQ
Crew Practice	B584	88	2
Crew Qualification	B584	120	2
<b>Total for Qualification</b>	<b>B584</b>	<b>416</b>	

*d. Stryker M2 .50 Cal Qualification, table 5–63.* Ninety percent of the vehicle commanders equipped with the M2 .50 Cal RWS will pass the Stryker Gunnery Skills Test within the past three months; receive a “Go” on qualification in accordance with FM 3–22.3; and Stryker Gunnery within the past six months.

**Table 5–63**  
**Stryker M2 Qualification**

Event	DODIC	Rnds	FREQ
table VI Crew Practice	A557	238	2
table VII Crew Qualification	A557	322	2
<b>Total for Qualification</b>	<b>A557</b>	<b>1120</b>	

## 5–15. MGS Mobile Gun System

These strategies include units equipped with the MGS and cover the active Army, Reserve, and National Guard components.

*a.* Crews will conduct the basic qualification course (table IV/CPC) every six months using TESS (Target Engagement Simulation System) or dry fire. Each crew member must pass the (CGST) Crew Gunnery Skills Test within six months before progressing to table IV. The crew must qualify on table IV before negotiating the intermediate (crew) qualification course (table VIII). A qualified crew is a Vehicle Commander and Gunner combination that has met table VIII standards together.

b. Crews must have conducted live-fire preparatory training (CGST, table IV, and Zero Main Gun) in accordance with FM 3–20.13 (Mobil Gun System Gunnery).

c. *MGS Qualification.* table 5–64 lists the standards for MGS Qualification are listed below.

**Table 5–64**  
**MGS Qualification**

EVENT/table	Freq	DODIC								
		C520	C511	CA37	CA40	A557	A131	AA38	LA06	LA07
table I	2	0	0	0	0	0	0	0	0	0
table II	2	0	0	0	0	0	0	0	0	0
table III	2	0	0	0	0	0	0	0	0	0
table IV/CPC <sup>1</sup>	2	0	0	0	0	150	200	9	3	0
ZERO <sup>1,2</sup>	2	4	4	4	0	100	100	5	0	0
table V	2	0	0	0	0	150	200	7	3	0
table VI	2	1	5	1	2	75	300	9	6	0
table VII <sup>1</sup>	2	1	6	2	3	225	475	12	7	0
table VIII	2	4	7	6	3	75	525	0	7	0
table IX	1	0	0	0	0	150	400	9	4	0
table X	1	2	3	3	1	150	300	0	4	0
<b>Totals</b>										
<b>AC MGS Lvl I</b>	<b>1</b>	<b>12</b>	<b>28</b>	<b>16</b>	<b>9</b>	<b>1675</b>	<b>4300</b>	<b>71</b>	<b>94</b>	<b>15</b>
<b>AC MGS Lvl II</b>	<b>1</b>	<b>10</b>	<b>22</b>	<b>13</b>	<b>8</b>	<b>775</b>	<b>1800</b>	<b>42</b>	<b>26</b>	<b>0</b>
<b>Per Year MGS</b>	<b>2</b>	<b>22</b>	<b>50</b>	<b>29</b>	<b>17</b>	<b>2450</b>	<b>6100</b>	<b>113</b>	<b>120</b>	<b>15</b>

Notes:

<sup>1</sup> Qualification Standards are conducted semi-annual; at a minimum will include CGST, table IV, and table VII. These standards must be met for the crew to be considered "qualified" in accordance with FM 3–20.13 (Mobil Gun System Gunnery).

<sup>2</sup> The MGS is ZEROED after a 3 round grouping is fired, to determine the Mean Point of Impact, into a 500m zero panel and (CCF) Computer Correction Factors are input. A confirmation round is fired to ensure CCF is correct, for a total of 4 rounds per ammunition type to zero the main gun, in accordance with FM 3–20.13 (Mobil Gun System Gunnery). CA40 Canister round does not get zeroed.

d. *Stryker ATGM Qualification.* Standards for TOW qualification are the same for all TOW platforms. Consult paragraph 5–6n for qualification requirements.

## 5–16. Active Army SBCT Infantry Collective Training

a. Collective training requirements in paragraph c, contain strategies for Soldiers assigned to Infantry Rifle, Infantry Recon, or MGS Platoon/Section, Soldiers assigned to a TOW Platoon/Section, Soldiers assigned to a Mortar Platoon/Section and one for all other CS/CSS Soldiers within the Infantry Battalion.

b. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

c. Collective Training Requirements.

(1) **Rifle/Recon/MGS Platoons.** The MGS provides direct support for Infantry missions. Soldiers assigned to a Rifle, Recon, or MGS platoon/section will participate in a squad sized or higher LFX to standard (ARTEP 7–5 MTP) every three months; participate in a Platoon/Company LFX to standard (ARTEP 7–10 MTP or ARTEP 7–12 MTP) every six months and participate in an external evaluation to standard (ARTEP 7–8 MTP) every six months.

(2) **Tow Platoons.** Soldiers assigned to a TOW platoon/section will participate in an external evaluation to ARTEP 7–91 MTP & ARTEP 7–91 Drill standards within the past six months in conjunction with a maneuver company or battalion FTX and participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(3) **Mortar Platoons.** Soldiers assigned to a mortar platoon/section will participate in an external evaluation to ARTEP 7–90 MTP & ARTEP 7–90 Drill standards as part of a company/battalion FTX within the past six months; participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(4) **CS/CSS.** Soldiers not previously addressed will participate in a Section/Platoon/Company LFX to standard every

12 months and participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

(5) **Urban Operations (UO) Training.** TC 90–1 contains training strategies and resource requirements. Resourcing for UO training comes from the collective training ammunition for each weapon. Infantry units are authorized additional UO specific training munitions contained in table 5–20. UO training is not a requirement; however Commanders are strongly encouraged to prepare their Soldiers for UO.

### 5–17. SBCT Infantry Battalion Collective Training Resourcing tables

a. Collective training resourcing for the SBCT is the same as for the light Infantry; refer to 5–7. Light Infantry Collective Training for the Active Army. Only unique resourcing requirements will be listed here.

b. *MGS Collective.* table 5–65 lists collective training ammunition for the MGS.

**Table 5–65**  
**Mobile Gun System Collective Training table<sup>1</sup>**

Event	Freq	DODIC					
		C511	AA38	LA06	LA07	A598/A557 <sup>2</sup>	A111/A131 <sup>2</sup>
Sqd/Plt/Co FTX	4	0	0	20	5	100	400
Bn FTX <sup>3</sup>	2	0	0	20	5	100	300
EXEVAL (ARTEP) <sup>3</sup>	2	0	0	20	5	100	300
Sqd/Plt LFX	4	0	10	0	0	100	300
Plt/Co LFX <sup>3</sup>	2	0	10	0	0	100	300
CALFEX	1	3	0	0	0	100	200
<b>Total Per Vehicle</b>							
C511 HEAT		3					
AA38 SLAP–T			60				
LA06 MGSS				160			
LA07 MGSS					40		
A598 Blank .50Cal						800	
A557 Mix .50Cal						700	
A111 Blank 7.62							2800
A131 Mix 7.62							2000

Notes:

<sup>1</sup> CATS States: The prerequisite for the CALFEX is that infantry platoons have successfully completed a LFX and the MGS platoon has successfully completed platoon gunnery.

<sup>2</sup> A598 .50 cal blank and A111 7.62mm blank will be used for non-live fire training (Sqd/Plt/Co FTX; BN FTX; and EXEVAL (ARTEP)).

<sup>3</sup> Indicates standard events.

c. *Mortar Collective Training.* (See table 5–66 thru 5–68) The SBCT Battalion mortar platoon and Infantry Company mortar section are equipped with the mounted 120mm and a dismountable 81mm and 60mm respectively. The SBCT mortar tables reflect a split training strategy allowing training on both mortar tube types.

**Table 5–66**  
**Active Army SBCT 120mm BN Mortar Platoon w/81mm Dismount Mortar**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/Sec/Plt Training w/81mm				20	2
Crew/Sec/Plt Training 120mm				20	2
EXEVAL Training w/81mm	14	10	9	30	1
ARTEP w/81mm <sup>1</sup>	18	10	9	30	1
ARTEP LFX 120mm <sup>1</sup>	14	8	4	20	1
EXEVAL LFX 120mm		7	4	20	1
CALFEX	16		7		1
<b>Total Rounds per Tube</b>					
	<b>DODIC</b>				<b>Rnds</b>
120 HE w/MOF	CA04				14
120 HEPD	C623				16
120 WP	CA03				15
120 Illum	C625				8
120mm IR Illum	CA07				7
81mm HEPD	C869				32
81mm RP	C870				20
81mm Illum	C871				9
81mm IR Illum	C484				9
81mm FRTR	C875				100
120mm FRTR	CA09				80

Notes:

<sup>1</sup> Indicates Standard.

**Table 5–67**  
**Active Army SBCT 120mm Co Mortar Section w/60mm Dismount Mortar**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/Sec/Plt Training w/60mm				20	2
Crew/Sec/Plt Training 120mm				20	2
EXEVAL training w/60mm	14	10	9	30	1
ARTEP w/60mm <sup>1</sup>	18	10	9	30	1
ARTEP LFX 120mm <sup>1</sup>	14	8	4	20	1
EXEVAL LFX 120mm		7	4	20	1
CALFEX	16		7		1
<b>Rounds per Tube</b>					
	<b>DODIC</b>				<b>Rounds</b>
120 HE w/MOF	CA04				14
120 HEPD	C623				16
120 WP	CA03				15
120 Illum	C625				8
120mm IR Illum	CA07				7

**Table 5–67**  
**Active Army SBCT 120mm Co Mortar Section w/60mm Dismount Mortar—Continued**

60mm HEPD	BA17	32
60mm WP	BA14	20
60mm Illum	B647	9
60mm IR Illum	BA04	9
60mm FRTR	BA15	100
120mm FRTR	CA09	80

Notes:

<sup>1</sup> Indicates Standard.

**Table 5–68**  
**Active Army RSTA BN 120mm Mortar**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/Sec/Plt Training				20	4
EXEVAL Training	12	6	4	22	1
EXEVAL	10	6	6	24	1
ARTEP LFX <sup>1</sup>	12	8	6	20	2
CALFEX	16	7	8	20	1
Rounds per Tube					
	DODIC				Rounds
120 HE w/MOF	CA04				16
120 HEPD	C623				46
120 WP	CA03				35
120 Illum	C625				16
120mm IR Illum	CA07				14
120mm FRTR	CA09				186

Notes:

<sup>1</sup> Indicates Standard

*d. Pyrotechnics.* Refer to table 5–37.

*e. Demolitions.* Refer to table 5–19.

## 5–18. SBCT National Guard (Infantry)

This section contains weapon qualification, collective training and resource requirements for SBCT units. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000. TADSS information is located in Section 5–18.

## 5–19. National Guard (NG) SBCT Infantry Individual Weapon Qualification Requirements

SBCT specific requirements are addressed in this section. Individual weapon qualification requirements are the same as those listed in paragraph 5–7 for Light Infantry. Qualification events are categorized by ancillary optics/NVDs assigned. Only Soldiers assigned additional optics/NVDs are authorized to conduct the qualification event listed for that device.

*a. Squad Designated Marksman (SDM).* table 5–69 applies only to Infantry Soldiers assigned to an Infantry Rifle Platoon. Eighty percent of the designated SDM will meet the certification standards in FM 3–22.9 within the past 12 months.

**Table 5–69**  
**NG/USAR SBCT M16/M4 SDM Certification (FM 3.22–9)**

Event	Type	Rnds	FREQ
<b>Phase I Position Evaluation</b>		0	4
<b>Phase II Dry-Fire Training</b>			
Zero/Zero Confirmation	Ball	18	1
<b>Phase III Range Estimation &amp; Sight Manipulation 100–500m</b>			
KD Range	Ball	20	1
<b>Phase IV Hold-Off 100–500m</b>			
KD Range (Hold-Off)	Ball	20	1
<b>Phase IV Field Fire 100–500m</b>			
Record Fire I	Ball	20	1
Record Fire II	Ball	20	1
<b>Total Rounds for Individual Certification</b>			
<b>DODIC</b>			
	Ball	AA33	98

*b. M16/M249 AR Reflexive Fire Certification.* table 5–70 applies only to Infantry Soldiers assigned to an Infantry Rifle or Infantry Recon Platoon. Eighty percent of Soldiers assigned to an Infantry or Recon platoon will qualify within the past 12 months. Reflexive fire qualification is conducted on table 7–5 in Chapter 5 of FM 3–22.9. Reflexive fire qualification is required prior to LFX training in a Shoot house.

**Table 5–70**  
**NG/USAR SBCT Reflexive Fire Certification**

Event	DODIC	Rnds	FREQ
Advanced Rifle Marksmanship	AA33	100	1
<b>Reflexive Fire Qualification</b>			
table 7–3	AA33	80	1
table 7–4	AA33	80	1
table 7–5	AA33	180	1
<b>Total for ARM</b>	<b>AA33</b>		<b>440</b>
<b>M249 AR table</b>			
<b>Reflexive Fire Qualification</b>			
table 7–3	A062	180	1
table 7–4	A062	120	1
table 7–5	A062	135	1
<b>Total for Qualification</b>			<b>435</b>

*c. Stryker MK–19 Remote Weapon Station (RWS), table 5–71.* Eighty percent of the vehicle commanders equipped with the MK–19 RWS will pass the RWS Skills Test within the past three months and receive a “Go” on qualification in accordance with FM 3–22.3 Stryker Gunnery within the past 12 months.

**Table 5–71**  
**NG/USAR SBCT Stryker MK19 Qualification**

Event	DODIC	Rnds	FREQ
table VI Crew Practice	B584	88	1
table VII Crew Qualification	B584	120	1
<b>Total for Qualification</b>	<b>B584</b>	<b>208</b>	

*d. M2 .50 Cal Remote Weapon Station (RWS) Qualification, table 5–72.* Eighty percent of the vehicle commanders equipped with the M2 .50 Cal RWS will pass the RWS Skills Test within the past three months; Receive a “Go” on qualification in accordance with FM 3–22.3 Stryker Gunnery within the past 12 months.

**Table 5–72**  
**NG/USAR SBCT Stryker M2 Qualification**

Event	DODIC	Rnds	FREQ
Crew Practice	A557	238	1
Crew Qualification	A557	322	1
<b>Total for Qualification</b>	<b>A557</b>	<b>560</b>	

*e. Shotgun Qualification/Ballistic Breaching, table 5–73.* Soldiers assigned to an Infantry squad that are designated to conduct ballistic shotgun breaching of doors will qualify on the shotgun every 12 months. Three Soldiers per squad are resourced to conduct qualification. Qualification will be conducted in accordance with STP 19–95C14 dated 26 Mar 99, Task # 191–381–1254. Soldiers must be qualified prior to conducting shotgun ballistic breaching.

**Table 5–73**  
**NG/USAR SBCT Shotgun Ammunition/Training Strategy**

Event	DODIC	Rnds	FREQ
PMI		EST	1
Instructional Fire	A011	3	1
Qualification Fire	A011	10	1
<b>Total Per Soldier</b>	<b>A011</b>	<b>13</b>	
<b>Shotgun Door Breaching Training Strategy</b>			
Event			
Ballistic Breaching	AA54	8	1
<b>Total Per Soldier</b>	<b>AA54</b>	<b>8</b>	

## 5–20. MGS Mobile Gun System

These strategies include units equipped with the MGS and cover the active Army, Reserve, and National Guard components.

### *a. MGS Qualification, table 5–74.*

(1) Crews will conduct the basic qualification course (table IV/CPC) every six months using TESS (Target Engagement Simulation System) or dry fire. Each crew member must pass the (CGST) Crew Gunnery Skills Test within six months before progressing to table IV. The crew must qualify on table IV before negotiating the intermediate (crew) qualification course (table VIII). A qualified crew is a Vehicle Commander and Gunner combination that has met table VIII standards together.

(2) Crews must have conducted live-fire preparatory training (CGST, table IV, and Zero Main Gun) in accordance with FM 3–20.13 (Mobil Gun System Gunnery).

(3) The standards for MGS Qualification are listed below

**Table 5–74**  
**MGS Qualification<sup>1, 2</sup>**

EVENT/table	FREQ	DODIC								
		C520	C511	CA37	CA40	A557	A131	AA38	LA06	LA07
I	1	0	0	0	0	0	0	0	0	0
II	1	0	0	0	0	0	0	0	0	0
III	1	0	0	0	0	0	0	0	0	0
IV/CPC <sup>1</sup>	1	0	0	0	0	150	200	9	3	0
ZERO <sup>1, 2</sup>	1	4	4	4	0	100	100	5	0	0
V	1	0	0	0	0	150	200	7	3	0
VI	1	1	5	1	2	75	300	9	6	0
VII <sup>1</sup>	1	1	6	2	3	225	475	12	7	0
VIII	1	4	7	6	3	75	525	0	7	0
<b>Totals</b>										
<b>RC MGS</b>	<b>1</b>	<b>10</b>	<b>22</b>	<b>13</b>	<b>8</b>	<b>775</b>	<b>1800</b>	<b>42</b>	<b>26</b>	<b>0</b>

Notes:

<sup>1</sup> Qualification Standards are conducted annually; at a minimum will include CGST, table IV, and table VII. These standards must be met for the crew to be considered "qualified" in accordance with FM 3–20.13 (Mobil Gun System Gunnery).

<sup>2</sup> The MGS is ZEROED after a 3 round grouping is fired, to determine the Mean Point of Impact, into a 500m zero panel and (CCF) Computer Correction Factors are inputted. A confirmation round is fired to ensure CCF is correct, for a total of 4 rounds per ammunition type to zero the main gun, in accordance with FM 3–20.13 (Mobil Gun System Gunnery). CA40 Canister round does not get zeroed.

*b. Stryker ATGM Qualification.* Consult paragraph 5–6n for TOW qualification requirements. TOW ITAS requirements have not been determined.

## 5–21. NG/USAR SBCT Infantry Collective Training

*a.* Collective training requirements in paragraph c, contain strategies for Soldiers assigned to Infantry Rifle, Infantry Recon, or MGS Platoon/Section, Soldiers assigned to a TOW Platoon/Section, Soldiers assigned to a Mortar Platoon/Section and one for all other CS/CSS Soldiers within the Infantry Battalion.

*b.* Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

*c.* Collective Training Requirements.

(1) **Rifle/Recon/MGS Platoons.** The MGS provides direct support for Infantry missions. Soldiers assigned to a Rifle, Recon, or MGS platoon/section will participate in a squad sized or higher LFX to standard (ARTEP 7–8 MTP) every three months; participate in a Platoon/Company LFX to standard (ARTEP 7–8 MTP) every six months and participate in an external evaluation to standard (ARTEP 7–8 MTP) every six months.

(2) **Tow Platoons.** Soldiers assigned to a TOW platoon/section will: participate in an external evaluation to ARTEP 7–91 MTP & ARTEP 7–91 Drill standards within the past six months in conjunction with a maneuver company or battalion FTX; participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(3) **Mortar Platoons.** Soldiers assigned to a mortar platoon/section will: participate in an external evaluation to ARTEP 7–90 MTP & ARTEP 7–90 Drill standards as part of a company/battalion FTX within the past six months; participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

(4) **CS/CSS.** Soldiers not previously addressed will participate in a Section/Platoon/Company LFX to standard every 12 months and participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

(5) **Urban Operations (UO) Training.** (See table 5–75) TC 90–1 contains training strategies and resource requirements. Resourcing for UO training comes from the collective training ammunition for each weapon. Infantry units are authorized additional UO specific training munitions contained in table 5–75. The Special Effects Small Arms Marking System (SESAMS) will use two DODICs to differentiate between red and blue; AB09 and AB16 are blue and AB10 and AB17 are red. UO training is not a requirement; however Commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy.



**Table 5–75**  
**NG/USAR SBCT UO Training Munitions<sup>1</sup>**

Munitions	DODIC	IN Co
GREM (Live)	GG12	6
GREM –TP (Inert)	GG11	10
5.56mm for GREM-(TP)	G841	50
Stun Grenade (Fuse)	GG19	260
Stun Grenade (Body)	GG18	26
5.56mm SESAMS (per weapon)	AB09/10	280
5.56mm SESAMS Linked (per weapon)	AB16/17	460
Smoke Pot M4A2	K511	1

Notes:

<sup>1</sup> Ammunition expressed in Company lots except where noted.

## 5–22. SBCT Infantry (NG/USAR) Battalion Collective Training

a. Resourcing tables Collective training resourcing for the SBCT are the same as for the light Infantry; refer to 5–18.

b. National Guard Light Infantry Battalion Collective Training Resourcing tables. Only unique resourcing requirements will be listed here.

c. *MGS Collective*. table 5–76 lists collective training ammunition for the MGS.

**Table 5–76**  
**NG/USAR Mobile Gun System Collective Training table**

Event	DODIC						
	FREQ	C511	AA38	LA06	LA07	A598/A557 <sup>2</sup>	A111/A131 <sup>2</sup>
SQD/PLT/Co FTX	2	0	0	20	5	100	400
BN FTX <sup>3</sup>	1	0	0	20	5	100	300
EXEVAL (ARTEP) <sup>3</sup>	1	0	0	20	5	100	300
SQD/PLT LFX	1	0	10	0	0	100	300
PLT/CO LFX	0	0	10	0	0	100	300
CALFEX	0	3	0	0	0	100	200
<b>Total Per Vehicle</b>							
C511 HEAT		0					
AA38 SLAP–T			10				
LA06 MGSS				80			
LA07 DIFCUE					20		
A598 Blank .50Cal <sup>2</sup>						400	
A557 Mix .50Cal						100	
A111 Blank 7.62MM <sup>2</sup>							1400
A131 Mix 7.62MM							300

Notes:

<sup>1</sup> CATS States: The prerequisite for the CALFEX is that infantry platoons have successfully completed a LFX and the MGS platoon has successfully completed platoon gunnery.

<sup>2</sup> A598 .50 cal blank and A111 7.62mm blank will be used for non-live fire training (SqD/Plt/Co FTX; BN FTX; and EXEVAL (ARTEP)).

<sup>3</sup> Indicates standard events.

d. *NG/USAR SBCT Mortars.* tables 5–77 through 5–79 list the mortar strategies for the NG/USAR. The NG/USAR will train one year on the 120mm and train on the dismounted mortar, either the 81mm or 60mm the next year. The RSTA is not affected by the split training strategy because it does not have a dismountable mortar.

**Table 5–77**  
**NG/USAR SBCT 120mm Co Mortar Section w/60mm<sup>1</sup>**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/ SEC/PLT Training w/60mm				26	1
Crew/ SEC/PLT Training 120mm				26	1
EXEVAL Training w/60mm		10	9	24	1
EXEVAL w120mm <sup>2</sup>	18	10	9	24	1
ARTEP LFX 60mm <sup>2</sup>	18	10	9	26	1
ARTEP w/120mm		10	9	26	1
Total Rounds per Tube					
DODIC					Rounds
Year One					
120 HEPD	C623				18
120mm FRTR	CA09				76
120 WP	CA03				20
120 Illum	C625				9
120mm IR Illum	CA07				9
Year Two					
60mm HEPD	BA17				18
60mm FRTR	BA15				76
60mm WP	BA14				20
60mm Illum	B647				9
60mm IR Illum	BA04				9
Notes:					
<sup>1</sup> The NG/USAR will train one year on the 120mm and the next year on the 60mm.					
<sup>2</sup> Indicates Standard.					

**Table 5–78**  
**NG/USAR SBCT 120mm BN Mortar Platoon w/81mm Dismount Mortar**

Event	Type				FREQ
	HE	WP	Illum	FRTR	
Crew/ SEC/PLT Training w/81mm				26	1
Crew/SEC/PLT Training 120mm				26	1
EXEVAL training w/81mm		10	9	24	1
EXEVAL w120mm <sup>1</sup>	18	10	9	24	1
ARTEP LFX 81mm <sup>1</sup>	18	10	9	26	1
ARTEP w/120mm		10	9	26	1
Total Rounds per Tube					
DODIC				Rounds	
Year One					

**Table 5–78**  
**NG/USAR SBCT 120mm BN Mortar Platoon w/81mm Dismount Mortar—Continued**

120 HEPD	C623	18
120mm FRTR	CA09	76
120 WP	CA03	20
120 Illum	C625	9
120mm IR Illum	CA07	9
<b>Year Two</b>		
81mm HEPD	C869	18
81mm FRTR	C875	76
81mm RP	C870	20
81mm Illum	C871	9
81mm IR Illum	C484	9

Notes:

<sup>1</sup> The NG/USAR will train one year on the 120mm and the next year on the 60mm.

<sup>2</sup> Indicates Standard.

**Table 5–79**  
**NG/USAR RSTA 120mm Mortar**

Event	Type				
	HE	WP	Illum	FRTR	FREQ
Crew/SEC/PLT Training 120mm				26	1
EXEVAL Training		10	9	24	1
EXEVAL LFX <sup>1</sup>	18	10	9	26	1
<b>Total Rounds per Tube</b>					
	<b>DODIC</b>				<b>Rounds</b>
120 HEPD	C623				18
120mm FRTR	CA09				76
120 WP	CA03				20
120 Illum	C625				9
120mm IR Illum	CA07				9

Notes:

<sup>1</sup> Indicates Standard.

### 5–23. Mechanized Infantry

This section contains TADSS information and resourcing tables for: Active Army Mechanized Infantry weapon qualification, collective training and National Guard Mechanized Infantry weapon qualification, collective training. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000.

### 5–24. Mechanized Infantry TADSS

This section contains Mechanized Infantry specific TADSS. Mechanized Infantry also utilizes most TADSS listed in the paragraph 5–6 Light Infantry TADSS.

*a.* Unit Conduct of Fire Trainer (UCOFT)/Mobile Conduct of Fire Trainer (MCOFT). This gunnery simulator provides training in critical gunnery and procedural tasks for Bradley gunners and vehicle commanders. The basis of issue is one UCOFT per Active Component (AC) Bradley equipped battalion and one MCOFT per Reserve Component (RC) Bradley equipped battalion. It will be used to sustain gunnery proficiency before, during and between periods of full caliber live firing. The COFT consists of a gunner and commander crew station, an instructor/operator station and integrated visual, audio and computer subsystems. Computer generated images are presented to the gunner and

commander through the optics of the Bradley fire control system. COFT is capable of training individual and crew collective operational procedures, target acquisition/identification, target engagement and adjustment of fire using primary or alternate fire control equipment.

b. **Bradley Advanced Training System (BATS).** This gunnery simulator provides training in critical gunnery and procedural tasks for M2A3 only Bradley gunners and vehicle commanders. The basis of issue is one BATS per Active Component (AC) Bradley equipped battalion. It will be used to sustain gunnery proficiency before, during and between periods of full caliber live firing. The BATS consists of a gunner and commander crew station, an instructor/operator station and integrated visual, audio and computer subsystems. Computer generated images are presented to the gunner and commander through the optics of the Bradley fire control system. BATS is capable of training individual and crew collective operational procedures, target acquisition/identification, target engagement and adjustment of fire using primary or alternate fire control equipment.

c. **M240C Machine-gun.** The M240C Coax machine-gun can be used to fire BFV sub caliber tables I, II, III, IV, and V on 1/10-scale, 1/5-scale, 1/2-scale and full-scale ranges. It can also be employed on a full-scale range using 1/2-scale targets to allow the gunner to use proper ranging procedures.

d. **Precision Gunnery System (PGS).** PGS is a vehicle appended precision gunnery training device that simulated 25mm, coax, and TOW firing for the BFV utilizing an eye-safe lasers and retro-reflectors. It interfaces with vehicle fire control system a permits precision and degraded gunnery training. A simulated tracer and impact burst is superimposed in the vehicles optics as the actual rounds would fly and impact. Additionally it collects crew data used during the AAR process. It can be used in conjunction with MILES, Remote Target Systems (RETS), Thru Sight Video (TSV), the Hoffman Device, Automatic Weapons Effects Signature Simulator (ATWESS) and Laser Target Interface Device (LTID). This device supports precision gunnery training for Bradley tables (I through IV and XI,) as well as use in force-on-force training to reinforce the gunnery skills learned in gunnery training.

e. **Close Combat Tactical Trainer (CCTT).** CCTT is a heavy force combined arms maneuver trainer. The system contains virtual simulators of M1 Tanks and BFV along with other tactical vehicles that allow crew, platoon and company tactical exercises on a realistic terrain database. The system supports simulator based practice of ARTEP Tasks prior to conducting live exercises in the field.

f. **Multiple Integrated Laser Engagement System (MILES).** MILES is a vehicle appended training device that simulates 25mm, coax, and TOW firing for the BFV utilizing an eye-safe laser. It can be used in conjunction with MILES, Remote Target Systems (RETS), Thru Sight Video (TSV), the Hoffman Device, Automatic Weapons Effects Signature Simulator (ATWESS) and Laser Target Interface Device (LTID). This device supports limited gunnery training for Bradley tables (I through IV and XI,) as well as use in force-on-force training.

g. **Laser Target Interface Device (LTIDS).** LTIDS permits MILES and PGS laser beams to interact with target mechanism in gunnery training.

h. **Bradley Full-Crew Interactive Simulation Trainer (BFIST).** Bradley FIST is a vehicle appended training device used by the ARNG components in their local armories. BFIST provides interactive full crew gunnery and limited maneuver training while interacting with a real vehicle.

## **5-25. Active Army Mechanized Infantry Individual Weapon Qualification Requirements**

Individual weapon qualification requirements are the same as those listed in paragraph 5-7 for Light Infantry.

## **5-26. Active Army Mechanized Infantry Collective Training Requirements**

a. **Bradley Fighting Vehicle.** All BFV crews must qualify on the Bradley Crew Proficiency Course (BT II) prior to live-fire. Eighty-five percent of the mechanized battalion's assigned primary crews and 85 percent of the platoon leader alternate M2 crews will have qualified on table VIII within the past six months. All platoon crews and the platoon leader alternate crews must qualify on BT VIII before firing BT XII. The following prerequisites must be met prior to crews participating in a full caliber live-fire training event:

(1) **Crew Gunnery Prerequisites:**

(a) Must have passed BGST to standards in accordance with FM 3-22.1 within 90 days.

(b) Must have qualified on the Bradley Proficiency Course (BT II) within 90 days to BT VIII.

(c) Crews must have zeroed there vehicle weapon systems prior to BT VIII.

(d) Crews should have fired BT V through VII prior to BT VIII.

(2) **Platoon Gunnery Prerequisites:**

(a) All crews participating in BT XI and XII must have met all the crew gunnery prerequisites within the previous 6 months.

(b) Platoons must have qualified on the Bradley Platoon Proficiency Course (BT IV) within the previous 6 months prior to firing BT XII.

(c) All rifle squad live fire prerequisites must have been met within the 6 months prior to BT XII.

b. **Rifle/Scout Platoons.**

(1) Seventy-five percent of the rifle platoons will have qualified on BT XII within the past six months. All infantry squads alone or as part of a larger unit will have successfully participated in a infantry squad LFX to standard (ARTEP

7–8 MTP/7–7J MTP FM 3–22.1) within the past six months. All platoons will have successfully completed an external evaluation to ARTEP 7–8 MTP (ARTEP 7–7J MTP) standards while participating in a Company or Battalion FTX within the past six months.

(2) The following prerequisites must be met prior to a rifle infantry squad member participating in a collective live-fire event:

(a) Must have qualified on his individual weapon within the previous 6 months.

(b) Must have participated in a squad level live-fire exercise within the previous 6 months prior to BT XII.

c. **Mortar Platoons.** Soldiers assigned to a mortar platoon/section will participate in an external evaluation to ARTEP 7–90 MTP & ARTEP 7–90 Drill standards as part of a company/battalion FTX within the past six months; participate in a Section/Platoon/Company LFX using assigned small arms to standard every 12 months.

d. **CS/CSS.** Soldiers not previously addressed will participate in a Platoon/Company LFX to standard every 12 months; participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

e. **Urban Operations (UO) Training.** TC 90–1 contains training strategies and resource requirements. Resourcing for UO training comes from the collective training ammunition for each weapon. Infantry units are authorized additional UO specific training munitions contained in table 5–21. UO training is not a requirement; however Commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy.

## 5–27. Active Army Mechanized Infantry Collective Training Resourcing tables.

Collective training resourcing for the Mechanized/Heavy Brigade Combat Teams is the same as for the light Infantry; refer to 5–8.

## 5–28. Light Infantry Collective Training for the Active Army.

Only unique resourcing requirements will be listed here, e.g., the Bradley Fighting Vehicle.

a. *M2 Bradley ODS & Below.* table 5–80 lists the annual training resourcing for Bradley Fighting Vehicles.

**Table 5–80**  
**M2A1 and M2A2 ODS (Active Army)**

Event	FREQ	DODIC									
		A940	A976	A131	A146	WH05	L592	A072	A111	G978	LA07
Pre Gunnery Training	12										
BGST	12										
COFT	12										
TOW Gunnery Program	1										
table V	2	0	0	0	193	0	0	0	0	0	0
Zero	8	3	2	50	0	0	0	0	0	0	0
VI A/B	2	32	24	400	0	0	0	0	0	0	14
VII A/B	2	56	32	400	0	0	0	0	0	0	18
VIII A/B	2	48	48	450	0	0	0	0	0	0	21
XI A/B	1	192	194	400	0	0	4	800	0	0	56
XII	1	192	194	800	0	0	4	0	0	0	68
CALFEX	1	24	24	200	0	1	2	0	0	16	12
CO FTX	2	0	0	0	0	0	0	0	400	0	0
BN FTX	2	0	0	0	0	0	0	0	200	0	0
BN EXEVAL	2	0	0	0	0	0	0	0	200	0	0
Average Rounds											
Per Vehicle		404	336	3545	386	1 Per Veh	4	166	1600	16	166

b. *M2A3 Bradley*. table 5–81 lists the annual training resourcing for M2A3 Bradley Fighting Vehicles.

**Table 5–81**  
**M2A3 (Active Army)**

Event	FREQ	DODIC									
		A940	A976	A131	A146	WH05	L592	A072	A111	G978	LA07
Prel Gunnery Training	12										
BGST	12										
COFT	12										
TOW Gunnery Program	1										
table V	2	0	0	0	193	0	0	0	0	0	0
Zero	8	3	2	50	0	0	0	0	0	0	0
VI A/B	2	32	32	450	0	0	0	0	0	0	14
VII A/B	2	64	32	450	0	0	0	0	0	0	18
VIII A/B	2	56	48	500	0	0	0	0	0	0	21
XI A/B	1	192	194	400	0	0	4	800	0	0	56
XII	1	192	194	800	0	0	4	0	0	0	68
CALFEX	1	24	24	200	0	1	2	0	0	16	12
Co FTX	2	0	0	0	0	0	0	0	400	0	0
Bn FTX	2	0	0	0	0	0	0	0	200	0	0
Bn EXEVAL	2	0	0	0	0	0	0	0	200	0	0
Average Rounds											
Per Vehicle		436	352	3545	386	1	4	166	1600	16	166

### 5–29. NG/USAR Mechanized Infantry Individual Weapon Qualification Requirements.

National Guard Soldiers will meet the same standard as Active Army Soldiers, however the qualification frequency is annual. Some qualification events are categorized by ancillary optics assigned. Only Soldiers assigned additional optics are authorized to conduct the qualification event listed. Refer to Light Infantry Weapon Qualification, paragraph 5–7.

### 5–30. ARNG Mechanized Infantry Collective Training Requirements

a. *Bradley Fighting Vehicle*.

(1) **Heavy Brigades**. All BFV crews must qualify on the Bradley Crew Proficiency Course prior to live firing. Eighty-five percent of the mechanized battalion's assigned primary crews and 85 percent of the platoon leader alternate M2 crews will have qualified on table VIII within the past 24 months.

(2) **Crew Gunnery Prerequisites**:

(a) Must have passed BGST to standards in accordance with FM 3–22.1 within 120 days.

(b) Must have qualified on the Bradley Proficiency Course (BT II) within 120 days to BT VIII.

(c) Crews must have zeroed there vehicle weapon systems prior to BT VIII.

(d) Crews should have fired BT V through VII prior to BT VIII.

b. **Rifle/Scout Platoons**. All dismounted Infantry squads will have successfully participated in a LFX to standard (ARTEP 7–8 MTP/ 7–7J MTP/ FM 3–22.1) every 12 months.

c. **Mortar Platoons**. Ninety percent of all squad leaders, gunners, and assistant gunners will have passed the mortar gunners exam (FM 23–90) and 90 percent of all section leaders and FDC personnel will have passed the FDC exam (FM 23–91) within the past training year. All mortar sections will participate in an external evaluation to ARTEP 7–90 MTP & ARTEP 7–90 Drill standards as part of a company/battalion FTX every 12 months.

d. **CS/CSS**. Soldiers not previously addressed will participate in a Platoon/Company LFX to standard every 12 months and participate in an external evaluation to standard every 12 months. Consult the appropriate ARTEP MTP for standards.

e. **Urban Operations (UO) Training**. TC 90–1 contains training strategies and resource requirements. Resourcing

for UO training comes from the collective training ammunition for each weapon. Infantry units are authorized additional UO specific training munitions contained in table 5–104. UO training is not a requirement; however Commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy.

### 5–31. NG/USAR Mechanized Infantry Collective Training Resourcing tables

Collective training resourcing for the Mechanized/Heavy Brigade Combat Teams are the same as for the light Infantry; refer to 5–8. Light Infantry Collective Training for the Active Army Only unique resourcing requirements will be listed here e.g., the Bradley Fighting Vehicle.

a. *Pyrotechnics*. Refer to table 5–75.

b. *M2 Bradley*. tables 5–82 list the annual training resourcing for NG/USAR Bradley Fighting Vehicles.

**Table 5–82**  
**M2A1 and M2A2 ODS (Reserve Component)**

Event	FREQ	DODIC									
		A940	A976	A131	A146	WH05	L592	A072	A111	G978	LA07
Pre Gunnery Training	12										
BGST	2										
COFT	6										
TOW Gunnery Program	1										
table V	1	0	0	0	193	0	0	0	0	0	0
Zero	4	3	2	50	0	0	0	0	0	0	0
VI A/B	1	32	24	400	0	0	0	0	0	0	14
VII A/B	1	56	32	400	0	0	0	0	0	0	18
VIII A/B	1	48	48	450	0	0	0	0	0	0	21
XI A/B	0	192	194	400	0	0	4	800	0	0	56
XII	0	192	194	800	0	0	4	0	0	0	68
CALFEX	0	24	24	200	0	1	2	0	0	16	12
CO FTX	0	0	0	0	0	0	0	0	400	0	0
BN FTX	0	0	0	0	0	0	0	0	200	0	0
BN EXEVAL	1	0	0	0	0	0	0	0	200	0	0
Average Rounds											
Per Vehicle		170	120	1548	193	0	0	0	83	0	64

### 5–32. Army Reserve Training Battalions

This section contains certification requirements and ammunition authorizations for committee instructors. Due to the varying timeline requirements, an annual ammunition roll up is not provided. Consult the certification requirements in paragraph 5–35 for specific requirements and resourcing authorizations.

### 5–33. Certification Requirements

a. *M2 Bradley (See table 5–83)*. All M2 Bradley Fighting Vehicle committee instructors will have certified on the Bradley Gunners Skill Test (BGST), and conducted sustainment crew device based gunnery (tables I–II) every 12 months. Committee instructors will have conducted sustainment live fire training (tables VI–VIII) within the past 36 months.

**Table 5–83**  
**Ammunition Requirement & Training Strategy for the Bradley Fighting Vehicle Committee Instructors**

DODIC							
Event	FREQ	A940	A976	L592	A131	A111	L602
table							
BGST <sup>1</sup>	1						
COFT <sup>1</sup>	2			2			
I–II Per Instructor <sup>2</sup>	1	6	4				
Zero per Instructor	.33	6	4	2	100		
VI A/B per Instructor <sup>3</sup>		33	32	24	350		14
VII A/B per Instructor <sup>3</sup>		33	56	24	400		18
VIII A/B per Instructor <sup>3</sup>		33	48	48	450		21
Total per Instructor every 36 Months		111	144	100	1300	1200	53

Notes:

<sup>1</sup> COFT frequency is recommended at 4 hrs. per crew every other month.

<sup>2</sup> tables I–II are conducted annually.

<sup>3</sup> tables VI–VIII is conducted once every 36 months.

*b. TOW.*(See table 5–84)Eighty percent of the TOW committee instructors will have; received a GO on all gunners skill test tasks (FM 23–34), familiarized tracking skills using the TOW gunnery trainer TGT and field tactical trainer FTT within the past 24 months.

**Table 5–84**  
**TOW Certification**

Event	Training Device	Type			FREQ
		M80	ATWESS	Smoke	
Gunner Skills Test		0			0.5
table I - Individual Practice	TGT	0			0.5
table II - Individual Qualification	TGT	0			0.5
table III - Advanced Practice	TGT	0			0.5
table IV - Advanced Qualification	TGT	0			0.5
table V A/B - Baseline Practice	TFTT	60			0.5
CO/PLT FTX		0	14	8	0.5
<b>Total per system for Certification</b>					<b>Rounds</b>
<b>DODIC</b>					
L592					60
WH05					14
G978					8

*c. Dragon.* (See table 5–85) Eighty percent of the assigned Dragon committee instructors will have verified tracking skills using the Dragon Gunnery Trainer (DGT) every 12 months. Eighty percent of the assigned Drill Sergeants involved in Dragon training will have verified tracking skills within the past 24 months. Verification consists of firing tables 7–8 in accordance with FM 3–23.34.



**Table 5–85**  
**Dragon Verification**

Event	Type	
	M80	FREQ
Gunner Sustainment Training	0	1
DGT Practice table 7	20	0.5
DGT Qualification table 8	20	0.5
DFTT Advanced Tracking	40	0
<b>Total Rounds per Gunner</b>		
	<b>DODIC</b>	<b>Rounds</b>
	L592	40

*d. Javelin.* (See table 5–86) Eighty percent of the assigned Javelin committee instructors will have verified lock-on and tracking skills using the Javelin BST (FM 3–23.37) every 12 months. Eighty percent of the assigned Drill Sergeants involved in Javelin training will have verified lock-on and tracking skills within the past 24 months.

**Table 5–86**  
**Javelin Verification<sup>1</sup>**

Event	Rnds	FREQ
Weapon Training	0	2
Gunnery Sustainment	0	1
Advanced Tracking	0	0
Verification/Qualification	0	0.5
<b>Total Rounds per Gunner</b>		<b>0</b>

Notes:

<sup>1</sup> No training ammunition is required for any Javelin event.

*e. AT–4.* (See table 5–87) Eighty percent of the assigned AT–4 committee instructors will have fired the 9mm Tracer Trainer (tables I and III of appendix B, FM 23–35) every 12 months. Eighty percent of the assigned Drill Sergeants will have fired the 9mm Tracer Trainer (table I of appendix B, FM 23–35) within the past 24 months. One live missile is authorized for each Training Battalion.

**Table 5–87**  
**AT–4 (FM 3–23.35)**

Event	DODIC	Rnds	FREQ
table I Instructional Day		12	1
table II Instructional Night		12	0
table III Day Qualification		8	1
table IV Night Qualification		8	0
table V Advanced Fire		6	0
<b>Total Rounds for Qualification</b>			
Qualification/Instructional Fire	A358	20	
Additional 9mm per Training BN for Drill Sergeants	A358	1080	
Live Missile per BN	C995	1	

*f. 60, 81, 120mm Mortar.*(See table 5–88) Eighty percent of the assigned Mortar Gunnery Committee Instructors and 11C Drill Sergeants will have passed the mortar gunners and FDC exam (FM 3–22.9) every 12 months. Committee instructors will have performed all tasks in ARTEP 7–90, section 1, and fired one live SRTR every 12 months.

**Table 5–88**  
**Mortar Certification<sup>1</sup>**

			Type		
Event	HE	WP	Illum	FRTR	Freq
60 mm Mortar					
Gunners Exam/FDC Exam					1
Crew Drill/FDC Training					4
Mortar Crew/Section Training				48	1
Total Rounds per Tube					
DODIC/Type					
BA15 FRTR				48	
81mm Mortar					
			Type		
Event	HE	WP	Illum	FRTR	Freq
Gunners Exam/FDC Exam					1
Crew Drill/FDC Training					4
Mortar Crew/ SEC/PLT Training				57	1
Mortar Crew/SEC/PLT Training		7	6	46	1
Total Rounds per Tube					
DODIC/Type					
C868 HE	0				
C870 WP		7			
C871 Illum			6		
C875 FRTR				108	
120mm Mortar					
			Type		
Event	HE	WP	Illum	FRTR	Freq
Gunners Exam/FDC Exam					1
Crew Drill/FDC Training					4
Crew/Sec/Plt Training				53	1
EXEVAL Training	31	10	9	31	1
Total Rounds per Tube					
DODIC/Type					
C623 or C788 HE	31				
CA03 WP		10			
C625 Illum			9		
CA09 FRTR				81	
Notes:					
1 Mortar committees will shoot 1 live 120mm HE per individual per year.					

g. *MK-19 GMG*. (See table 5-89) Eighty percent of the assigned committee instructors and Drill Sergeants will have fired table I (TC 23-AIMSS) every 12 months. Committee instructors will have fired table III every 24 months. table I -IV requires 62 rounds depending upon the type target used and sight.

Table 5–89 MK 19 GMG			
Event		Rounds	FREQ
Pre Marksmanship Training		TADSS	4
Day Qualification			
table I Day Practice		62	1
table II Day Qualification		62	0
Night Qualification			
AN–PEQ–2A/AN/PAS–13			
table III Night Practice		62	0.5
table IV Night Qualification		62	0
Total Rounds			
		DODIC	Rounds
Day Practice			
table I		B584	62/93
Night Practice			
table III		B584	62/93

h. *M60/M240B MG/M249 LMG*. (See table 5-90) Eighty percent of the assigned committee instructors will have qualified on the 10-meter and Transition record courses every 12 months and qualified on the night vision sight / NVD transition record course every 24 months. Eighty percent of the assigned Drill Sergeants will have completed instructional firing every 24 months. Instructional firing is Day Transition fire.

<b>Table 5-90 M240B/M249 LMG (FM 3-22.68)</b>			
Event	Type	Rounds	FREQ
Pre Marksmanship Training	TADSS	0	4
<b>Iron Sight Qualification</b>			
<b>table IV</b>			
10 M Zero/Practice	Ball/EST	185	1
10 M Record	Ball/EST	91	1
<b>Subtotal</b>	<b>Ball/EST</b>		<b>276/0</b>
<b>table V</b>			
Iron Sight/MGO Transition Zero/Practice	Mix	182	1
Iron Sight/MGO Transition Record	Mix	154	1
<b>Subtotal</b>	<b>Mix</b>		<b>336</b>
<b>Thermal Weapon Sight Qualification</b>			
TWS Zero (NFOV & WFOV)	Mix	36	0.5
TWS Night Field Fire III	Mix	154	0.5
table VI TWS Practice & Record	Mix	308	0.5
<b>Subtotal</b>	<b>Mix</b>		<b>498</b>
<b>Infrared Aiming Light Qualification</b>			

**Table 5–90**  
**M240B/M249 LMG (FM 3–22.68)—Continued**

IR Zero	Mix	18	0.5
IR Night Field Fire III	Mix	154	0.5
table VI IR Practice & Record	Mix	308	0.5
<b>Subtotal</b>	<b>Mix</b>	<b>480</b>	

**Total Rounds for Qualification**

	DODIC		Rounds
	M249 LMG	M240B	
10-meter Qualification (Ball/EST)	A062	A143	276/0
Transition Qualification (Mix)	A064	A131	336
TWS Qualification	A064	A131	498
IR Qualification	A064	A131	480
Drill Sergeant Instructional Fire	A064	A131	336

*i. M249 AR.* (See table 5–91) Eighty percent of the assigned committee instructors will have; qualified on the 10-meter and Transition record courses every 12 months; qualified on the night vision sight / NVD transition record course within the past 24 months. Eighty percent of the assigned Drill Sergeants will have completed instructional firing within the past 24 months. Instructional firing is 10-meter fire.

**Table 5–91**  
**M249AR Qualification (FM 3–22.68 )**

Event	Type	Rounds	FREQ
Pre Marksmanship Training	TADSS	0	4
<b>Iron Sight Qualification</b>			
<b>Firing table I</b>			
10m Zero	Ball/EST	6	1
10m Practice & Record	Ball/EST	102	1
<b>Total</b>	<b>Ball</b>		<b>108</b>
<b>Firing table II</b>			
Transition Zero	Mix	12	1
Transition Practice & Record	Mix	132	1
<b>Subtotal</b>	<b>Mix</b>		<b>144</b>
<b>Firing table III TC 23–AIMSS</b>			
<b>TWS Qualification</b>			
TWS Zero (NFOV & WFOV)	Mix	36	0.5
TWS Night Field Fire III	Mix	66	0.5
TWS Limited Visibility Practice	Mix	66	0.5
TWS Limited Visibility Qualification	Mix	66	0.5
<b>Subtotal</b>			<b>234</b>
<b>IR Qualification</b>			
IR Zero	Mix	18	0.5
IR Night Field Fire III	Mix	66	0.5
IR Practice	Mix	66	0.5
IR Qualification	Mix	66	0.5
<b>Subtotal</b>	<b>Mix</b>		<b>150</b>
<b>Total Rounds for Qualification</b>			

**Table 5–91**  
**M249AR Qualification (FM 3–22.68 )—Continued**

		Rounds	
10-meter Qualification Ball/EST	Commercial Pack	A062	108/0
Transition Qualification (4&1 Mix)	Military Pack	A064	144
TWS Qualification	Military Pack	A064	234
IR Qualification	Military Pack	A064	150
Drill Sergeant Instructional Fire	Commercial Pack	A062	108/0

*j. M16/M4.* (See table 5–92) Eighty percent of the assigned committee instructors and Drill Sergeants responsible for teaching BRM will have qualified on the day record course every 12 months and qualified on the NBC record and unassisted night record courses every 24 months.

**Table 5–92**  
**M16/M4 Qualification (FM 3.22–9)**

Event	Type	Rounds	FREQ
<b>Qualification</b>			
<b>Phase I</b>			
Pre Marksmanship Training	TADSS	0	4
<b>Phase II</b>			
Iron Sight Zero	Ball	18	1
Iron Sight Qualification			
<b>Phase III</b>			
Iron Sight Practice Record	Ball	40	1
Iron Sight Record	Ball	40	1
NBC Practice	Ball/EST	20	0.5
NBC Record	Ball/EST	20	0.5
Unassisted Night Practice	Ball/EST	20/10	0.5
Unassisted Night Record	Ball/EST	20/10	0.5
<b>Rounds For Qualification wo/EST</b>		<b>DODIC</b>	<b>Rounds</b>
Iron Sight Qualification	AA33		98
NBC Qualification	AA33		40
Unassisted Night Fire	AA33/A063		40/20
<b>Rounds For Qualification with EST</b>		<b>DODIC</b>	<b>Rounds</b>
Iron Sight Qualification	AA33		98
NBC Qualification	N/A		0
Unassisted Night Fire	N/A		0

Notes:

<sup>1</sup> 0.5 denotes every two years.

<sup>2</sup> OCONUS request A063 in lieu of AA33

k. *Hand Grenade.* (See table 5–93) All Committee group instructors and Drill Sergeants will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 every 12 months.

**Table 5–93**  
**Hand Grenade (FM 3–23.30)**

Event	Type	Rounds	FREQ
Qualification			
Hand Grenade Qualification Course <sup>1</sup>	M228	6	1
Total For Qualification	M228	10	

Notes:

<sup>1</sup> Indicates Standard.

## Chapter 6 Engineer

### 6–1. Description

a. This chapter provides standards and training strategies for all weapons, mines, and demolitions assigned to an Engineer unit. The strategies are based on the proponent’s input and recommendations. The training programs provided have been tied directly to Soldiers Manual and Mission Training Plan (MTP) tasks at the different unit levels. Each program contains a training standard and strategy which outlines the training sequence, including frequencies for live fire, sub-caliber fire, and device usage. Differences in unit component, Active Duty (AC), Reserve and National Guard (RC), will be spelled out in each section and table.

b. The objective of STRAC is to assist commanders in attaining and sustaining standards in accordance with their unit make-up and component, and to ensure that combat proficiency is maintained in units on Engineer systems, mines, and demolitions. Weapon system specific training devices should be used to progressively aid individual and collective skill development in garrison, local training areas, and combat training centers. The devices provide higher frequency training opportunities to sustain skill sets in accordance with FM (Field Manual) 7–0’s sustainment training band. The standard is assessed against the unit’s ability to maintain published Army Training and Evaluation Program (ARTEP) standards for squad qualification and combat readiness with and without the use of live fire exercises.

### 6–2. Individual Weapons Training, Requirements and Qualification

Some of the tables in this chapter include designated columns for Combat Engineers (12B) and “Others” which is for all remaining Engineer Military Occupational Specialties (MOSs).

### 6–3. Training Aids, Devices, Simulators and Simulations (TADSS)

A realistic approach to training that includes live fire and TADSS is needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew-served weapons TADSS information are contained in Appendix B.

### 6–4. Non-Infantry Urban Operations Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved urban operations (UO) training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on a commander’s Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO training strategy information is contained in Appendix C.

### 6–5. Individual Weapon Qualification Requirements

a. *M9 Automatic Pistol* (See table 6–1). Ninety percent (Active), eighty percent (NG and USAR) of the Soldiers assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3–23.35 every six months (Active) or every 12 months (NG & USAR) for the events listed below.

**Table 6–1**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC	Rnds	Freq	
				AC	USAR/NG
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	7	2	1
CPQC table VII Night Fire <sup>1,2</sup>	Ball/EST	AA49	5	2	1
<b>Total Rounds for Qualification</b>					
Non EST Equipped Units	9MM M882	AA49		184	92
EST Equipped Units	9MM M882	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations equipped with Engagement Skills Trainer (EST) 2000, Night & Nuclear, Biological, and Chemical (NBC) qualification will be conducted on EST 2000.

*b. M16 Rifle/M4 Carbine* (See table 6–2).

(1) Primary and secondary day sight: The primary sight is either the Close Combat-optic (CCO)/Advance Combat Optical Gunsight (ACOG) or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(2) Ninety percent of army active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard will alternate primary and secondary sight qualification every year, if equipped.

(4) OCONUS units will request A059 Ball in lieu of AA33; if lead-free is required, request AA45. Iron Sight/Back Up Iron Sight (BIS): All soldiers will qualify on the day and NBC record course. Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(5) Day Requirements with EST 2000: Iron Sight/Back up Iron Sight (BIS); All soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000. Close Combat Optic (CCO); Soldiers assigned the CCO will qualify on the day record course.

(6) Night Requirements: Soldiers will execute the night unassisted record fire course in accordance with FM 3–22.9 if EST 2000 is not available. If the EST 2000 is available the night unassisted record fire course will be conducted utilizing the EST 2000.

(7) Night Requirements for the Thermal Weapon Sight (TWS) and Infrared (IR) aiming light: Soldiers will qualify on the night transition record course with each Night Vision Device (NVD) assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 6–2**  
**M16/M4 Qualification (FM 3–22.9)**

		DODIC <sup>3</sup>		Freq	
Event	Type	AA33	A063	AC	RC
Iron Sight (Primary Sight)					
Pre Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98

**Table 6-2**  
**M16/M4 Qualification (FM 3-22.9)—Continued**

Close Combat Optic (Primary Sight) <sup>2</sup>				
Pre Marksmanship Training	EST/LMTS		4	2
Zero (CCO) <sup>1</sup>	Ball	18	2	1
Practice (CCO)	Ball	40	2	1
Record (CCO) <sup>1</sup>	Ball	40	2	1
Back-Up Iron Sight Zero	Ball	18	1	1
Back-Up Iron Sight Prac Rec	Ball	40	1	1
Back-Up Iron Sight Record	Ball	40	1	1
<b>Subtotal</b>			<b>294</b>	<b>196</b>
All Primary Sights				
NBC Practice	Ball or EST	20	2	1
NBC Record <sup>1</sup>	Ball or EST	20	2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2
<b>Subtotal (AA33/A063)</b>				
Units not equipped with EST			160/40	80/20
Units equipped with EST			0/0	0/0
Thermal Weapon Sight <sup>2</sup>				
Zero (WFOV & NFOV) <sup>1, 4</sup>	Ball	36	2	1
Night Field Fire I	Ball	36	2	1
Practice Record	Ball	40	2	1
Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>304</b>	<b>152</b>
Infrared <sup>2</sup>				
IR Zero <sup>1</sup>	Ball	18	2	1
IR Night Field Fire I	Ball	36	2	1
IR Practice Record	Ball	40	2	1
IR Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>268</b>	<b>134</b>
Total Rounds				
	AC		RC	
	w/o EST/w/ EST		w/o EST/w/ EST	
	AA33 <sup>3</sup>	A063	AA33 <sup>3</sup>	A063
Iron Sight Only Qual	356/196	40/0	178/98	20/0
CCO & BIS Qual	454/294	40/0	276/196	20/0
Thermal Weapon Sight	304/304	0/0	152/152	0/0
Infrared	268/268	0/0	134/134	0/0

Notes:

<sup>1</sup> Indicates required events/standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

<sup>4</sup> Wide Field Of View (WFOV) and Narrow Field of View (NFOV)



c. *M203 Grenade Launcher (GL) Standard* (See table 6–3).

(1) Ninety percent of Soldiers assigned the M203 Grenade Launcher (GL) will zero and meet the day qualification standards in FM 3–22.31 within the past six months.

(2) Eighty percent of RC Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every 12 months.

**Table 6–3**  
**M203 Qualification (FM 3–22.31)**

Event	Type	DODIC	Rnds	Freq	
				AC	USAR/NG
Day Zero <sup>1</sup>	TP <sup>2</sup>	B519	6	2	1
Day Qualification <sup>1</sup>	TP <sup>2</sup>	B519	15	2	1
<b>Total Rounds for Qualification</b>				42	21

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Training Projectile (TP).

d. *M249 AR Standard* (See table 6–4).

(1) Primary and secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and if equipped with night vision devices, conduct night qualification in accordance with TC 23–AIMSS (Advance Infantry Marksmanship Strategies and Standards) within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will have qualified with that sight within 12 months.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–23.68 and night qualification standards in TC 23–AIMSS within 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course in accordance with FM 3–22.68.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 6–4**  
**M249 AR Qualification (FM 3–22.68)**

		DODIC		Freq	
Event	Type	A062	A064	AC	USAR/NG
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1

**Table 6–4**  
**M249 AR Qualification (FM 3–22.68)—Continued**

Transition Record <sup>1</sup>	Mix	66	2	1
<b>Subtotal (A062/A064)</b>				
Units not equipped with EST			216/288	108/144
Units equipped with EST			0/288	0/144
<b>Machine Gun Optic (Primary Sight)<sup>2</sup></b>				
Pre Marksmanship Training	TADSS		4	N/A
<b>Firing table I</b>				
10m Zero (MGO) <sup>1</sup>	Ball or EST	6	2	N/A
10m Practice (MGO)	Ball or EST	51	2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51	2	N/A
Iron Sight 10m Zero	Ball or EST	6	1	N/A
Iron Sight 10m Practice	Ball or EST	51	1	N/A
Iron Sight 10m Record	Ball or EST	51	1	N/A
<b>Firing table II</b>				
Transition Zero (MGO) <sup>1</sup>	Mix	12	2	N/A
Transition Practice (MGO)	Mix	66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix	66	2	N/A
Iron Sight Transition Zero	Mix	12	1	N/A
Iron Sight Transition Practice	Mix	66	1	N/A
Iron Sight Transition Record	Mix	66	1	N/A
<b>Subtotal (A062/A064)</b>				
Units not equipped with EST			324/432	N/A
Units equipped with EST			0/432	N/A
<b>Firing table III TC 23–AIMSS</b>				
<b>Thermal Weapon Sight<sup>2</sup></b>				
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1
TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Practice	Mix	66	2	1
TWS Limited Visibility Qual <sup>1</sup>	Mix	66	2	1
Subtotal			468	234
<b>Infrared<sup>2</sup></b>				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			432	216
<div> <div>AC</div> <div>USAR/NG</div> <div>w/o EST/w/ EST</div> <div>w/o EST/w/ EST</div> </div>				
<b>Total Rounds</b>				
	<b>A062</b>	<b>A064</b>	<b>A062</b>	<b>A064</b>
Iron Sight Only	216/0	288/288	108/0	144/144
MGO & Iron Sight	324/0	432/432	N/A	N/A
Thermal Weapon Sight	0/0	468/468	0/0	234/234

**Table 6-4**  
**M249 AR Qualification (FM 3-22.68)—Continued**

Infrared	0/0	432/432	0/0	216/216
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Notes:  
<sup>1</sup> Indicates Standard.

*e. M249 Machine Gun Standard* (See table 6-5).

(1) Primary and secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 in the Light Machine Gun (LMG) role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3-22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Reserve Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3-22.68 every 12 months. The National Guard and Army Reserve will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: All soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

*f. M60 Machine Gun/M240B Machine Gun Standard.*

(1) Primary and secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight. Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3-22.68 lists a 7 to 9 round burst. Qualification must be conducted using a 5 to 7 round burst. Refer to table 3-4 for ammunition allocation.

(2) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3-22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3-22.68 every 12 months. The AR and ARNG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 6-5**  
**M240B/M249 LMG Qualification (FM 3-22.68)**

Event	Type	DODIC <sup>2</sup>		Freq		
		A143/ A062	A131/ A064	AC w/o MGO	AC w/ MGO	NG BCT/USAR
Pre Marksmanship Training	TADSS			4		4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero For Bipod & Tripod <sup>1</sup>	Ball/EST	24		2	3	1
10m Practice	Ball/EST	161		2	3	1
10m Record <sup>1</sup>	Ball/EST	91		2	3	1
<b>Subtotal with EST</b>	Ball			0	0	0
<b>Subtotal without EST</b>	Ball			552	828	276

**Table 6–5**  
**M240B/M249 LMG Qualification (FM 3–22.68)—Continued**

Firing table II					
Transition Zero <sup>1</sup>	Mix	28	2	3	1
Transition Practice	Mix	154	2	3	1
Transition Record <sup>1</sup>	Mix	154	2	3	1
<b>Subtotal</b>	<b>Mix</b>		<b>672</b>	<b>1008</b>	<b>336</b>
TWS Qualification					
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	36	2		1
TWS Night Field Fire III	Mix	154	2		1
TWS Limited Visibility Practice	Mix	154	2		1
TWS Limited Visibility Qual <sup>1</sup>	Mix	154	2		1
<b>Subtotal</b>			<b>996</b>		<b>498</b>
IR Qualification					
IR Zero <sup>1</sup>	Mix	18	2		1
IR Night Field Fire III	Mix	154	2		1
IR Practice	Mix	154	2		1
IR Qualification <sup>1</sup>	Mix	154	2		1
<b>Subtotal</b>	<b>Mix</b>		<b>960</b>		<b>480</b>
Total Rounds					
DODIC	AC		USAR/NG BCT		
	A143/ A062	A131/ A064	A143/ A062	A131/ A064	
Primary Sight Qual w/EST	0	672	0	336	
Primary Sight Qual wo/EST	552	672	276	336	
MGO & Iron Sight Qual wo/EST	828	1008			
MGO & Iron Sight Qual w/EST	0	1008			
TWS Qualification	0	996	0	498	
IR Qualification	0	960	0	480	

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> Lead-free ball is DODIC AA44.

*g. MK–19 Grenade Machine gun Standard* (See table 6–6).

(1) Ninety percent of Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 within the past six months. The MK–19 table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3–22.27 to determine which table to utilize and number of rounds to request.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 within the past 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 6–6**  
**MK 19 GMG Qualifications (FM 3–22.27)**

Event	DODIC	Rnds	Freq	
			AC	NG/USAR
Preliminary Marksmanship Training	TADSS		4	4
<b>Day Qualification</b>				
table I Day Practice		62	2	1
table II Day Qualification <sup>1</sup>		62	2	1
<b>Subtotal</b>			<b>248</b>	<b>124</b>
<b>Night Qualification</b>				
<b>AN/PEQ–2A</b>				
table III Night Practice		62	2	1
table IV Night Qualification <sup>1,2</sup>		62	2	1
<b>Subtotal</b>			<b>248</b>	<b>124</b>
<b>AN/PAS–13</b>				
table III Night Practice		62	2	1
table IV Night Qualification <sup>1,2</sup>		62	2	1
<b>Subtotal</b>			<b>248</b>	<b>124</b>
<b>Total Rounds for Qualification</b>				
Day Qualification				
table I & II	B584		248	124
<b>Night Qualification</b>				
AN/PEQ–2A	B584		248	124
AN/PAS–13	B584		248	124

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> Night qualification is required for each NVD assigned.

*h. M2 HB .50 Cal MG Standard* (See table 6–7).

(1) Ninety percent of Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.65 within the past six months.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the M2 HB .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.65 within the past 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 6–7**  
**M2 .50 cal Qualification (FM 3–22.65)**

Event	Type	DODIC	Rnds	Freq	
				AC	NG/USAR
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
<b>Subtotal</b>				<b>560</b>	<b>280</b>
<b>Night Qualification</b>					

**Table 6–7**  
**M2 .50 cal Qualification (FM 3–22.65)—Continued**

AN/PEQ–2A					
Night Zero <sup>1</sup>	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>				<b>556</b>	<b>278</b>
AN/PAS–13 HTWS					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>				<b>576</b>	<b>288</b>
Total Rounds for Qualification					
Day Qualification					
table I & II	Mix	A557		560	280
Night Qualification					
AN/PEQ–2A Qualification	Mix	A557		556	278
AN/PAS–13 HTWS Qualification	Mix	A557		576	288
Notes:					
<sup>1</sup> Indicates Standard.					

*i. M1200 Shotgun Standard* (See table 6–8).

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 6–8**  
**M1200 Qualification (STP 19–95C1–SM)**

Event	Type	DODIC	Rnds	Freq	
				AC	NG/ USAR
Preliminary Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A011	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2	1
Total Rounds for Qualification					
Total	Buckshot	A011		26	13
Shotgun Door Breaching Training Strategy					
Ballistic Breaching	Breaching	AA54	8	2	1
Total Per Soldier	Breaching	AA54		16	8
Notes:					
<sup>1</sup> Indicates Standard.					

*j. AT–4 Standard* (See table 6–9).

(1) Qualification requirements for Soldiers assigned to a Combat Engineer Platoon/Section differ from Soldiers not assigned to an Engineer Platoon/Section. Qualification is conducted using the M287 sub-caliber tracer trainer. Consult the appropriate requirements below.

(2) Engineer Requirements: Three Soldiers per Active Army Engineer squad and two Soldiers per Army Reserve & National Guard Engineer squad will qualify in accordance with the Day and Night requirements listed below.

(a) Engineer Day Requirements: Qualify on Day Qualification table III in accordance with FM 3–23.25 every six months for Active Army; within the past 12 months for Reserve and National Guard.

(b) Engineer Night Requirements: Qualify on Night Qualification table IV in accordance with FM 3–23.25 every six months with each of the following devices if assigned, IR Aiming Light, and AN/PAS–13 TWS: within the past 12 months for Reserve and National Guard.

(c) All Other Soldiers Requirements: Ten percent of the assigned Soldiers (E–5s and below) will qualify on Day Qualification table III in accordance with FM 3–23.25 every six months; within the past 12 months for Reserve and National Guard.

**Table 6–9**  
**AT–4 Qualification (FM 3–23.25 & ST 23–AIMSS)**

Event	DODIC	Rnds	CBT EN	Freq	
				USAR/NG EN	All Oth
table I Instructional Day	A358	12	2	1	1
table II Instructional Night	A358	12	2	1	1
table III Day Qualification <sup>1</sup>	A358	8	2	1	1
table IV Night Qualification <sup>1</sup>	A358	8	2	1	0
table V Advanced Fire	A358	6	2	0	0
<b>Total Rounds for Qualification</b>					
Qualification/Instructional Fire	A358		92	40	32

Notes:

<sup>1</sup> Indicates Standard.

k. *Javelin Standard* (See table 6–10).

(1) All Gunners and Assistant Gunners will meet the Gunnery Skills Test (GST) qualification standards in accordance with FM 3–22.37 every three months. The GST consists of BST qualification exercises, FTT qualification exercises, and a range card exercise. There are a total of 40 exercises.

(2) Seventy-five percent of assigned Army Reserve and National Guard gunners will meet the GST qualification standards in accordance with FM 3–22.37 every 12 months. The GST consists of BST qualification exercises, FTT qualification exercises, and a range card exercise. There are a total of 40 exercises.

**Table 6–10**  
**Javelin Qualification (FM 3–22.37)<sup>2</sup>**

Event	Rnds	Freq	
		AC	NG/USAR
Weapon Training	0	12	2
Gunnery Sustainment	0	12	1
Advanced Tracking	0	6	1
GST Verification/Qualification <sup>1</sup>	0	4	1
<b>Total Rounds per Gunner</b>		<b>0</b>	<b>0</b>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> No training ammunition is required for any Javelin event. Javelin participates in SQD/PLT LFX and CALFEX using MILES and the laser target interface device.

*l. Hand Grenade Standard* (See table 6–11). Qualification requirements for Soldiers assigned to an Engineer platoon/squad differ from Soldiers not assigned to a Combat Engineer platoon/squad. Consult the appropriate requirements below.

(1) Engineer Requirements: Active Army Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 every six months.

(2) All Other Soldiers, Army Reserve, and National Guard Requirements: Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 every 12 months.

**Table 6–11**  
**Hand Grenade (FM 3–23.30)**

				Freq	
Event	DODIC	Rnds	AC CBT EN	AC EN /All Oth	NG/USAR
Qualification					
Mock Bay	G878	2	1	0.5	0.5
Hand Grenade Qualification Course <sup>1</sup>	G878	6	2	1	1
Total For Qualification	G878		14	7	7
Live Grenade Throw <sup>2</sup>	G881	1	0.5	0.5	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

*m. Claymore Mine Standard* (See table 6–12).

(1) Engineer Requirements: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every three months. Army Reserve and National Guard Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months.

(2) All Others: Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months. Army Reserve and National Guard Requirements will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months.

**Table 6–12**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	Rnds	AC CBT EN	Freq	
				AC EN All Oth	NG/USAR
Employment Instruction/Qualification <sup>1</sup>	Inert	N/A	4	1	1

Notes:

<sup>1</sup> No rounds required for qualification.

## 6–6. Engineer Collective Training

*a. Description.*

(1) Collective training requirements are in paragraph 6–7, ammunition resources are contained in the weapon qualification resourcing tables under the collective training heading.

(2) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(3) Collective training by component:

*b. Active Duty:* Soldiers will participate in a Squad (SQD)/Section/Platoon (PLT)/Company (CO) LFX to standard every 12 months; participate in a Squad/Section/Platoon/Company FTX every six months; participate in an external evaluation (EXEVAL) to standard every 12 months. Consult appropriate ARTEP/MTP manuals for standards. LFX should be tailored to your units METL.

*c. National Guard BCT:* Soldiers will participate in a Squad/Section/Platoon/Company STX/FTX every 12 months;



participate in an external evaluation (EXEVAL) to standard once every 24 months. Consult appropriate ARTEP/MTP manuals for standards.

*d. Reserve Engineers:* Soldiers will participate in a Squad/Section/Platoon/Company STX/FTX once every 24 months; participate in an external evaluation (EXEVAL) to standard once every 24 months. Consult appropriate ARTEP/MTP manuals for standards.

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Combat Engineer Platoon Soldiers will: participate in a squad sized or higher LFX to standard (ARTEP MTP) every three months participate in a Platoon/Company LFX to standard (ARTEP MTP) every 12 months; participate in an external evaluation to standard (ARTEP MTP) every 12 months.

(3) All Others: Soldiers not previously addressed will participate in a Platoon/Company LFX to standard every 12 months; participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

## 6-7. Engineer Battalion Collective Training Resourcing tables

*a. M16/M4.* table 6-13 list Advanced Rifle Marksmanship (ARM) and collective training resourcing for a Combat Engineer Platoon and All Other Soldiers.

**Table 6-13**  
**M16/M4 Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
SQD/PLT LFX	Ball/Tracer	A059/A063	130/20	4	0
PLT/CO LFX <sup>1</sup>	Ball/Tracer	A059/A063	130/20	2	1
CALFEX	Ball/Tracer	A059/A063	120/10	1	0
SQD/PLT/Co FTX/STX	Blank	A080	120/40	4	1
Bn FTX	Blank	A080	120/40	2	1
EXEVAL (ARTEP) <sup>1</sup>	Blank	A080	120/40	2	1
<b>Total Rounds For Collective Training</b>					
	Ball	A059		900	130
	Tracer	A063		130	20
	Blank	A080		960	120

Notes:

<sup>1</sup> Indicates Standard.

*b. M249 AR.* table 6-14 list collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6-14**  
**M249 AR Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
SQD/PLT LFX	Mix	A064	300	4	0
PLT/Co LFX <sup>1</sup>	Mix	A064	300	2	1
CALFEX	Mix	A064	200	1	0
SQD/PLT/Co FTX/STX	Blank	A075	200	4	0
Bn FTX	Blank	A075	300	2	1
EXEVAL (ARTEP) <sup>1</sup>	Blank	A075	300	2	1
<b>Total Rounds For Collective Training</b>					

**Table 6–14**  
**M249 AR Collective Training—Continued**

	Mix	A064	2000	300
	Blank	A075	2000	600

Notes:

<sup>1</sup> Indicates Standard.

*c. M249 LMG.* table 6–15 lists collective training resourcing for All Other Soldiers assigned the M249 in the LMG role. The LIN # for the M249 LMG is M39263.

**Table 6–15**  
**M249 LMG Collective Training**

Event	Type	DODIC	Rnds	Freq
				All Oth
SQD/PLT LFX	Mix	A064	300	0
PLT/CO LFX <sup>1</sup>	Mix	A064	300	1
CALFEX	Mix	A064	200	0
SQD/PLT/CO FTX/STX	Blank	A075	200	1
Bn FTX	Blank	A075	300	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A075	200	1
<b>Total Rounds For Collective Training</b>				
	Mix	A064		300
	Blank	A075		400

Notes:

<sup>1</sup> Indicates Standard.

*d. M240B MG.* table 6–16 list collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–16**  
**M240B Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Others
SQD/PLT LFX	Mix	A131	300	4	0
PLT/Co LFX <sup>1</sup>	Mix	A131	300	2	1
CALFEX	Mix	A131	200	1	0
SQD/PLT/Co FTX/STX	Blank	A111	400	4	1
Bn FTX	Blank	A111	400	2	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A111	400	2	1
<b>Total Rounds For Collective Training</b>					
	Mix	A131		2000	300
	Blank	A111		3200	800

Notes:

<sup>1</sup> Indicates Standard.

e. *M203*, table 6–17 lists collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–17**

**M203 Collective Training**

Event	DODIC	CBT EN/ All Oth	CBT EN/ All Oth	Freq
SQD/PLT LFX	B519/B535	18/0	5/0	4
PLT/Co LFX <sup>1</sup>	B519/B535	18/0	5/0	2
CALFEX	B519/B535	12/0	0/0	1
SQD/PLT LFX <sup>1</sup>	B519/B535	0/4	0	1
<b>Rounds For Collective Training</b>				
	B519 (TP)	120/4		
	B535 (WSP)	30/0	30/0	

Notes:

<sup>1</sup> Indicates Standard.

f. *M2 .50 HB Cal MG*, table 6–18 list collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–18**

**M2 Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
SQD/PLT/Co LFX	Mix	A557	100	4	0
PLT/Co LFX <sup>1</sup>	Mix	A557	100	2	1
CALFEX	Mix	A557	100	1	0
SQD/PLT/Co FTX/STX	Blank	A598	100	4	1
Bn FTX	Blank	A598	100	2	1
EXEVAL <sup>1</sup>	Blank	A598	100	2	1
<b>Total Rounds Collective Training</b>					
	Mix	A557		700	100
	Blank	A598		800	300

Notes:

<sup>1</sup> Indicates Standard.

g. *MK–19 GMG*, table 6–19 lists collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–19**  
**MK–19 GMG Collective Training**

Event	DODIC	Rnds	Freq	
			CBT EN	All Oth
SQD/PLT/Co LFX	B584 <sup>2</sup>	30	2	0
PLT/Co LFX <sup>1</sup>	B584 <sup>2</sup>	30	2	1
CALFEX	B584 <sup>2</sup>	24	1	0
<b>Total For Collective Training</b>				
	B584 <sup>2</sup>		144	30

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Use BA21 when available.

*h. Claymore Mine.* table 6–20 lists collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–20**  
**Claymore Collective Training**

Event	Type/DODIC	Rnds	Freq	
			CBT EN	All Oth
SQD/PLT/Co FTX/STX	Inert	N/A	4	1
Bn FTX	Inert	N/A	2	1
EXEVAL <sup>1</sup>	Inert	N/A	1	1
LFX per CBT EN Squad <sup>1</sup>	M18A1/A2	1	4	0
LFX Per All Other Platoons <sup>1</sup>	M18A1/A2	1	0	1
Claymore Mines Per Squad			4	
Claymore Mines Per Platoon				1

Notes:

<sup>1</sup> Indicates Standard.

*i. Hand Grenade.* table 6–21 lists collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6–21**  
**Hand Grenade Collective Training<sup>2</sup>**

Event	DODIC	Rnds per SQD	Freq	
			CBT EN	All Oth
SQD/PLT LFX <sup>1</sup>	G878	6	4	0
PLT/Co LFX <sup>1</sup>	G878	6	2	0
<b>Total For Collective Training</b>				
	G878		36	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Note: LFX utilizes inert hand grenade body & M228 fuze.

j. *M136 (AT-4)*. table 6-22 list collective training resourcing for Soldiers assigned to Combat Engineer Platoons and All Other Soldiers.

**Table 6-22**  
**AT-4 Collective Training**

Event	ATWESS	M136	DODIC	Freq	
				CBT EN	All Others
SQD/PLT/Co FTX	6			2	2
EXEVAL (ARTEP) <sup>1</sup>	6			2	1
Live Rocket		1		1	0
<b>Total per AT-4 Gunner</b>					
ATWESS			L367	24	18
M136 per squad			C995	1	0

Notes:

<sup>1</sup> Only 3 Soldiers per Engineer squad and 10 percent of E-5s and below for "All Others" are authorized to qualify on the AT-4. Collective training ammunition should be used to support training for Soldiers qualified on the AT-4.

k. *Strategy* (See table 6-23).

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers CS Chamber assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 6-23**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber	K765	1 per 10 Soldiers	1	1
Prime Chamber	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> 2. The CS Chamber must be primed with 5 capsules to begin training.

l. *M2 Bradley*. table 6-24 lists the annual training resourcing for Bradley Fighting Vehicles.

**Table 6-24**  
**Annual Ammunition Requirements & Training Strategy for the BEFV (M2) per Battalion<sup>4</sup>**

Event	Freq	DODIC							
		A940	A976	A146	WH05	L592	A131	A111	LA07
PGT <sup>1</sup>	12								
BGST <sup>1</sup>	2								
COFT <sup>1</sup>	12								
TGP	1								
table V x 29 Crews	2			160					
Zero x 29 Vehicles	8	3	2				50		
<b>Subtotal #4</b>		<b>696</b>	<b>464</b>	<b>9280</b>			<b>11600</b>		
VI A/B x 29 Crews	2	32	24				400		14

**Table 6–24**  
**Annual Ammunition Requirements & Training Strategy for the BEFV (M2) per Battalion<sup>4</sup>—Continued**

<b>Subtotal #5</b>		<b>1856</b>	<b>1392</b>				<b>23200</b>	<b>812</b>	
VII A/B x 29 Crews	2	56	24				400	18	
<b>Subtotal #6</b>		<b>3248</b>	<b>1392</b>				<b>23200</b>	<b>1044</b>	
VIII A/B x 29 Crews	2	48	48				450	21	
<b>Subtotal #7</b>		2784	2784				26100	1218	
Dism LFX x 6 PLT <sup>3</sup>	2								
<b>Subtotal #8</b>									
XI A/B x 6 PLT <sup>3</sup>	2						2		
<b>Subtotal #9</b>							<b>24</b>		
XII x 6 PLT <sup>3</sup>	2	96	96			2	1600	28	
<b>Subtotal #10</b>		<b>1164</b>	<b>1164</b>			<b>24</b>	<b>19200</b>	<b>336</b>	
CALFEX x 29 Crews <sup>2</sup>	1	24	24	1	2	200	6		
<b>Subtotal #11</b>		<b>696</b>	<b>696</b>	<b>29</b>	<b>58</b>	<b>5800</b>	<b>174</b>		
Co FTX x 29 Crews	2							200	
<b>Subtotal #12</b>								<b>5800</b>	
Bn FTX x 29 Crews	2							200	
<b>Subtotal # 13</b>								<b>5800</b>	
Bn EXEVAL x 29 crews	2							200	
<b>Subtotal #14</b>								<b>5800</b>	
Rds per Vehicle:		360	273	320	1	4	3762	600	118
Total Per Bn:		10432	7892	9280	29	135	109100	17400	3446

Notes:

<sup>1</sup> Preliminary Gunnery Training is conducted monthly. BGST is conducted prior to live fire and U-COFT is recommended at 8 hrs per crew every month.

<sup>2</sup> TOW Gunnery Program (TGP) is conducted at a minimum prior to TOW live fire in accordance with FM 3–22.1.

<sup>3</sup> XI, XII and dismounted LFX are resourced from STRAC requirements for M16, M60, and SAW.

<sup>4</sup> Crew breakdown: 6 = 4 platoon vehicles x 2, 24 = 4 platoon vehicles x 6, 29 = primary crews as TOW missile become available.

*m. CS Chamber Strategy* (See table 6–23).

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 6–25**  
**Pyrotechnics<sup>2</sup>**

<b>Nomenclature</b>	<b>DODIC</b>	<b>BN Amount</b>	<b>Sep CO Amount</b>
HG Smk GRN	G940	16	2
HG Smk YEL	G945	48	11
HG Smk RED	G950	36	10
HG Smk VIOL	G955	28	5
HG Smk CS	G963	28	5
HG Smk HC	G982	48	9
Smk Pot Flt, M4A2	K511	20	4
Sig Illum	L305	8	1
Sig Illum	L306	28	5

**Table 6–25**  
**Pyrotechnics<sup>2</sup>—Continued**

Sig Illum	L307	20	4
Sig Illum	L311	8	1
Sig Illum	L312	20	4
Sig Illum	L314	20	4
Flare Surface Trip	L495	28	5
Sim Proj Grnd Brst	L594	104	18
Sim Proj Air Brst <sup>1</sup>	L595	2	0
Sim Booby trap Flash	L598	40	8
Sim Booby trap Illum	L599	28	5
Sim Booby trap Whis	L600	28	5
Sim Hand grenade	L601	56	10

Notes:

<sup>1</sup> Denotes one kit of 20 each simulators.

<sup>2</sup> Demolitions Munitions Expressed in Battalion Lots.

## 6–8. USAR Light Infantry Battalion Collective Training Resourcing tables

*a. M16/M4.* table 6–26 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–26**  
**M16/M4 Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
Fire and Move LFX	Ball/Tracer	A059/A063	16/4	1	0
SQD/PLT LFX	Ball/Tracer	A059/A063	130/20	0	0
PLT/Co LFX <sup>1</sup>	Ball/Tracer	A059/A063	130/20	1	0
CALFEX	Ball/Tracer	A059/A063	120/10	0	0
SQD/PLT/Co FTX/STX	Blank	A080	120/40	1	1
Bn FTX	Blank	A080	120/40	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A080	120/40	0.5	0.5
<b>Total Rounds For Collective Training</b>					
	Ball	A059		146	0
	Tracer	A063		24	0
	Blank	A080		120/240	40/80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

*b. M249 AR.* table 6–27 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–27**  
**M249 AR Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
Fire and Move LFX	Mix	A064	70	1	0
Squad/Platoon LFX	Mix	A064	300	0	0
PLT/Co LFX <sup>1</sup>	Mix	A064	300	1	0
CALFEX	Mix	A064	200	0	0
SQD/PLT/Co FTX/STX	Blank	A075	200	1	1
Bn FTX	Blank	A075	300	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A075	300	0.5	0.5
<b>Total Rounds For Collective Training</b>					
	Mix	A064		370	0
	Blank	A075		350	350

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

c. *M249 LMG.* table 6–28 lists collective training resourcing for All Other Soldiers assigned the M249 in the LMG role. The LIN # for the M249 LMG is M39263.

**Table 6–28**  
**M249 LMG Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
Squad/Platoon LFX	Mix	A064	300		0
PLT/Co LFX <sup>1</sup>	Mix	A064	300		1
CALFEX	Mix	A064	200		0
SQD/PLT/Co FTX/STX	Blank	A075	200		0
Bn FTX	Blank	A075	300		1
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A075	300		0.5
<b>Total Rounds For Collective Training</b>					
	Mix	A064			300
	Blank	A075			450

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

d. *M240B MG.* table 6–29 lists collective training resourcing for Soldiers assigned to a Engineer Platoon and All Other Soldiers.



**Table 6–29**  
**M240B Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
SQD/PLT LFX	Mix	A131	300	0	0
PLT/Co LFX <sup>1</sup>	Mix	A131	300	1	0
CALFEX	Mix	A131	200	0	0
SQD/PLT/Co FTX/STX	Blank	A111	400	1	0
Bn FTX	Blank	A111	400	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A111	400	0.5	0.5
<b>Rounds For Collective Training</b>					
	Mix	A131		300	0
	Blank	A111		600	200

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

*e. M203 GL.* table 6–30 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–30**  
**M203 GL Collective Training**

Event	DODIC		Freq	
	B519	B535	CBT EN	All Oth
SQD/PLT LFX	18	5	2	0
PLT/Co LFX <sup>1</sup>	18	5	2	0
CALFEX	12	0	0	0
<b>Totals</b>				
	B519 (TP)		62	0
	B535 (WSP)		20	0

Notes:

<sup>1</sup> Indicates Standard.

*f. M2 .50 HB cal MG.* table 6–31 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–31**  
**M2 Collective Training**

Event	Type	DODIC	Rnds	Freq	
				CBT EN	All Oth
SQD/PLT/Co LFX	Mix	A557	100	0	0
PLT/Co LFX	Mix	A557	100	0	0
CALFEX	Mix	A557	100	0	0
SQD/PLT/Co FTX/STX	Blank	A598	100	1	1
BN FTX	Blank	A598	100	0	0
EXEVAL <sup>1,2</sup>	Blank	A598	100	0.5	0.5

**Table 6–31**  
**M2 Collective Training—Continued**

Total Rounds Collective Training				
	Mix	A557	0	0
	Blank	A598	100/200	100/200

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

*g. MK–19 GMG.* table 6–32 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–32**  
**MK–19 GMG Collective Training<sup>1</sup>**

Event	DODIC	Rnds	Freq	
			CBT EN	All Oth
SQD/PLT/Co LFX	B584	30	2	0
PLT/Co LFX	B584	30	2	1
CALFEX	B584	24	1	0
Total For Collective Training				
	B584		144	30

Notes:

<sup>1</sup> BA12 will be used as it becomes available.

*h. Claymore Mine.* table 6–33 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–33**  
**Claymore Collective Training**

Event	Type/ DODIC	Rnds	Freq	
			CBT EN	All Oth
SQD/PLT/Co FTX/STX <sup>1</sup>	Inert	N/A	1	1
Bn FTX	Inert	N/A	0	0
EXEVAL <sup>1</sup>	Inert	N/A	0	0
LFX per IN/SCT SQD	M18A1/A2/ K143	1	0	0
LFX Per All Other PLT	M18A1/A2/ K143	1	0	0
Claymore Mines Per SQD			0	
Claymore Mines Per PLT				0

Notes:

<sup>1</sup> Indicates Standard.

*i. Hand Grenade.* table 6–34 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–34**  
**Hand Grenade Collective Training**

Event	DODIC	Rounds M228 Per SQD	Freq	
			CBT EN	All Oth
SQD/PLT LFX <sup>1</sup>	G878	6	1	0
PLT/Co LFX <sup>1</sup>	G878	6	0	0
<b>Total For Collective Training</b>				
	G878		6	0

Notes:

<sup>1</sup> Indicates Standard.

*j. M136 (AT–4).* table 6–35 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–35**  
**AT–4 Collective Training**

Event	DODIC	ATWESS	M136	Freq	
				CBT EN	All Oth
SQD/PLT/Co FTX	L367	6		1	1
EXEVAL (ARTEP) <sup>1</sup>	L367	6		1	0
Live Rocket	C995		1	0	0
<b>Total per AT–4 Gunner</b>					
ATWESS	L367			12	6
M136 per squad	C995			0	0

Notes:

<sup>1</sup> Indicates Standard.

*k. USAR Engineer Pyrotechnics.* table 6–36 lists resourcing for Companies and Battalions.

**Table 6–36**  
**USAR Engineer Pyrotechnics**

Nomenclature	DODIC	Bn Amount	Sep CO Amount
HG Smk GRN	G940	4	2
HG Smk YEL	G945	18	9
HG Smk RED	G950	18	10
HG Smk VIOL	G955	10	5
HG Smk CS	G963	10	5
HG Smk HC	G982	18	9
Smk Pot Flt, M4A2	K511	4	1
Sig Illum	L305	2	1
Sig Illum	L306	10	5
Sig Illum	L307	8	4
Sig Illum	L311	2	1
Sig Illum	L312	8	4
Sig Illum	L314	8	4
Flare Surface Trip	L495	10	5

**Table 6–36**  
**USAR Engineer Pyrotechnics—Continued**

Sim Proj Grnd Brst	L594	29	18
Sim Arty Gun Flash	L596	0	0
Sim Proj Air Brst	L595	0	0
Sim Booby trap Flash	L598	16	8
Sim Booby trap Illum	L599	10	5
Sim Booby trap Whis	L600	10	5
Sim HG	L601	20	10

*l. National Guard Engineer Individual Weapon Qualification Requirements.* National Guard Soldiers will meet the same standard as Active Army Soldiers; however the qualification frequency is every 12 months. Refer to Engineer Weapon Qualification, paragraph 6–3.

*m. National Guard Engineer Battalion Collective Training Resourcing tables.* The weapon tables below list collective training resourcing for Soldiers assigned to a BCT Engineer Platoon. BCT Soldiers not assigned to an Engineer Battalion will utilize BCT All Other.

(1) *M16/M4 National Guard Collective Training.* table 6–37 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–37**  
**M16/M4 National Guard Collective Training**

Event	Type	DODIC	Rnds	CBT EN	All Oth	Freq	
						BCT CBT EN	BCT All Oth
Fire & Move LFX	Ball/ Tracer	A059/ A063	16/ 4	1	0	1	0
SQD/PLT LFX	Ball/ Tracer	A059/ A063	130/ 20	1	0	1	0
PLT/Co LFX	Ball/ Tracer	A059/ A063	130/ 20	0	0	0	0
CALFEX	Ball/ Tracer	A059/ A063	120/ 10	0	0	0	0
SQD/PLT/Co FTX/STX <sup>1</sup>	Blank	A080	40	1	1	2	1
Bn FTX	Blank	A080	40	0	0	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A080	40	0.5	0.5	0.5	0.5
<b>Total Rounds For Collective Training</b>							
	Ball	A059		146	0	146	0
	Tracer	A063		24	0	24	0
	Blank	A080		60	60	100	60

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(2) *M249 AR National Guard Collective Training.* table 6–38 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–38**  
**M249 AR National Guard Collective Training**

Event	Type	DODIC	Rnds	CBT EN	All Oth	Freq	
						BCT CBT EN	BCT All Oth
Fire and Move LFX	Mix	A064	70	1	0	1	0
SQD/PLT LFX	Mix	A064	300	1	0	1	0
PLT/Co LFX	Mix	A064	300	0	0	0	0
CALFEX	Mix	A064	200	0	0	0	0
SQD/PLT/Co FTX/STX <sup>1</sup>	Blank	A075	200	1	1	2	1
Bn FTX	Blank	A075	300	0	0	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A075	300	0.5	0.5	0.5	0.5
<b>Total Rounds For Collective Training</b>							
	Mix	A064		370	0	370	0
	Blank	A075		350	350	550	350

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(3) *M249 LMG*. table 6–39 lists collective training resourcing for All Other Soldiers assigned the M249 in the LMG role. The LIN # for the M249 LMG is M39263.

**Table 6–39**  
**M249 LMG National Guard Collective Training**

Event	Type	DODIC	Rnds	CBT EN	All Oth	Freq	
						BCT CBT EN	BCT All Oth
SQD/PLT LFX	Mix	A064	300	0	0	0	1
PLT/Co LFX	Mix	A064	300	0	0	0	0
CALFEX	Mix	A064	200	0	0	0	0
SQD/PLT/Co FTX/STX <sup>1</sup>	Blank	A075	400	0	1	0	1
Bn FTX	Blank	A075	400	0	0	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A075	400	0	0.5	0	0.5
<b>Total Rounds For Collective Training</b>							
	Mix	A064		0	0	0	300
	Blank	A075		0	600	0	600

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(4) *M240B MG National Guard Collective Training*. table 6–40 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–40**  
**M240B National Guard Collective Training**

Event	Type	DODIC	Rnds	CBT EN	All Oth	Freq	
						BCT CBT EN	BCT All Oth
SQD/PLT LFX	Mix	A131	300	1	0	1	0
PLT/Co LFX	Mix	A131	300	0	0	0	0
CALFEX	Mix	A131	200	0	0	0	0
SQD/PLT/Co FTX/STX <sup>1</sup>	Blank	A111	400	1	0	1	1
Bn FTX	Blank	A111	400	0	0	0	0
EXEVAL (ARTEP) <sup>1,2</sup>	Blank	A111	400	0.5	0.5	0.5	0.5
<b>Total Rounds For Collective Training</b>							
	Mix	A131		300	0	300	0
	Blank	A111		600	200	600	600

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(5) *M203 GL National Guard Collective Training.* table 6–41 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–41**  
**M203 GL National Guard Collective Training (CBT EN) <sup>1</sup>**

Event	DODIC	Rnds	Freq
			CBT EN
SQD/PLT LFX	B519/ B535	18/4	1
PLT/Co LFX	B519/ B535	18/0	1
CALFEX	B519/ B535	12/0	0
<b>Total Rounds For Collective Training</b>			
	B519 (TP)	36	
	B535 (WSP)	4	

Notes:

<sup>1</sup> No distinction made for BCT Brigade collective training.

(6) *M2 .50 cal MG National Guard Collective Training.* table 6–42 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–42**  
**M2 National Guard Collective Training**

Event	Type	DODIC	Rnds	CBT EN	All Oth	Freq	
						BCT CBT EN	BCT All Oth
SQD/PLT/Co LFX	Mix	A557	100	0	0	1	0
PLT/Co LFX	Mix	A557	100	0	0	0	0
CALFEX	Mix	A557	100	0	0	0	0
SQD/PLT/Co FTX/STX <sup>1</sup>	Blank	A598	100	1	0	1	1
BN FTX	Blank	A598	100	0	0	0	0

**Table 6–42**  
**M2 National Guard Collective Training—Continued**

EXEVAL <sup>1,2</sup>	Blank	A598	100	0.5	0.5	0.5	0.5
<b>Total Rounds Collective Training</b>							
	Mix	A557		0	0	100	0
	Blank	A598		150	50	150	150

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(7) *MK–19 GMG National Guard Collective Training.* table 6–43 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–43**  
**MK–19 GMG National Guard Collective Training**

Event	Freq				
	B584	CBT EN	All Oth	BCT CBT EN	BCT All Oth
SQD/PLT/Co LFX	30	0	0	1	0
PLT/Co LFX	0	0	0	0	0
CALFEX	24	0	0	0	0
<b>Total For Collective Training</b>					
	B584	0	0	30	0

(8) *Claymore Mine National Guard Collective Training.* table 6–44 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–44**  
**Claymore National Guard Collective Training**

Event	Type	Rnds	CBT EN	All Oth	Freq	
					BCT CBT EN	BCT All Oth
SQD/PLT/Co FTX/STX <sup>1</sup>	Inert	N/A	1	1	1	1
Bn FTX	Inert	N/A	0	0	0	0
EXEVAL <sup>1,2</sup>	Inert	N/A	0.5	0.5	0.5	0.5
LFX per CBT EN SQD	M18A1/A2	1	0	0	0.5	0
LFX Per All Other PLT	M18A1/A2	1	0	0	0	0
Claymore Mines Per SQD			0	0	0.5	0
Claymore Mines Per PLT				0	0	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

(9) *Hand Grenade National Guard Collective Training.* table 6–45 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–45**  
**Hand Grenade National Guard Collective Training<sup>2</sup>**

Event	DODIC	Rnds M228 Per SQD	CBT EN	All Oth	Freq	
					BCT CBT EN	BCT All Oth
SQD/PLT LFX	G878	6	1	0	1	0
PLT/Co LFX	G878	6	0	0	0	0
EXEVAL <sup>1</sup>	G878	6	1	1	1	1
<b>Total For Collective Training</b>						
	G878		12	6	12	6

Notes:

<sup>1</sup> Indicates Standard.

(10) *M136 (AT–4) National Guard Collective Training.* table 6–46 lists collective training resourcing for Soldiers assigned to an Engineer Platoon and All Other Soldiers.

**Table 6–46**  
**AT–4 National Guard Collective Training<sup>2, 3</sup>**

Event	DODIC		CBT EN	All Others	Freq	
	ATWESS	M136			BCT CBT EN	BCT All Others
SQD/PLT/Co FTX	6		1	0	1	0
EXEVAL (ARTEP) <sup>1</sup>	6		1	0	1	0
Live Rocket		1	0	0	0	0
<b>Total per AT–4 Gunner</b>						
ATWESS	L367		12	0	12	0
M136 per squad	C995		0	0	0	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates a Biennial event.

<sup>3</sup> Only 2 Soldiers per engineer squad and 10 percent of E–5s and below for "All Others" are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for Soldiers qualified on the AT–4.

(11) *National Guard Engineer Pyrotechnics.* table 6–47 lists resourcing for Companies and Battalions.

**Table 6–47**  
**National Guard Engineer Pyrotechnics<sup>1</sup>**

Nomenclature	DODIC	Bn Amount	Sep Co Amount
HG Smk GRN	G940	4	2
HG Smk YEL	G945	18	9
HG Smk RED	G950	18	10
HG Smk VIOL	G955	10	5
HG Smk CS	G963	10	5
HG Smk HC	G982	18	9
Smk Pot Flt, M4A2	K511	4	1
Sig Illum	L305	2	1
Sig Illum	L306	10	5
Sig Illum	L307	8	4
Sig Illum	L311	2	1



**Table 6-47**  
**National Guard Engineer Pyrotechnics<sup>1</sup>—Continued**

Sig Illum	L312	8	4
Sig Illum	L314	8	4
Flare Surface Trip	L495	10	5
Sim Proj Grnd Brst	L594	29	18
Sim Proj Air Brst	L595	0	0
Sim Booby trap Flash	L598	16	8
Sim Booby trap Illum	L599	10	5
Sim Booby trap Whis	L600	10	5
Sim Hand grenade	L601	20	10

Notes:

<sup>1</sup> Demolitions Munitions Expressed in Battalion Lot.

## 6-9. Pyrotechnics for Engineer Units

*a.* This section provides the annual pyrotechnic training requirements for Engineer units listed below. The tables provide the total training requirements and notional training strategies by type unit.

*b.* The objective of this section is to assist ammunition managers in forecasting pyrotechnic requirements, and to provide guidance for the unit trainer in the suggested authorization of pyrotechnics.

*c.* Units were grouped according to like-type training missions and the intensity of field training in which they would be expected to participate.

*d.* Headquarters are to be considered in the total battalion allocation as are OPFOR requirements, and any attachments. Pyrotechnic requirements for NTC have been resourced separately and are not a part of the unit's annual requirements as provide therein. Specialized pyrotechnics such as Hoffman charges and ATWESS charges are listed with the weapon system to which they pertain and can be found with the appropriate weapon system in this chapter.

*e.* Pyrotechnic requirements are listed in Roll Up tables 6-25, 6-36, and 6-47. Units classified as USAR Training Battalions are to use table 6-36. In order to calculate pyrotechnic requirements for the year, the unit identifies its unit type and enters the appropriate table. Requirements shown in the far right column of the table are the total annual requirements for the battalion or separate companies. Unit trainers must subdivide these resources among their subordinate units as the training situation dictates.

## 6-10. Engineer Proponent Strategies

*a.* This section provides training standards, strategies and resource requirements to conduct training with Engineer Systems, mines, and demolitions. The training programs provided have been tied directly to SM and MTP tasks for Active, NG and Reserve Units.

*b.* The objective is to assist field commanders in attaining and sustaining individual and unit proficiency on Engineer systems, mines, and demolitions.

*c.* The standards and strategies for Engineer weapons systems are based on tasks found in the MTPs, SM, and FM 3-22.1. The specific of each exercise will not be presented here, appropriate manuals must be consulted.

(1) Demolition Tasks.

(a) Individual.

1. Construct a Modernized Demolition Initiator (MDI)/Detonating Assembly.

2. Prime Explosives Non-electrically.

3. Prime Explosives with Detonating Cord.

(b) MTP.

1. Disable Critical Equipment Materials.

2. Create a Crater Obstacle with Explosives.

3. Disable a LOC/Airfield.

4. Disable a Bridge with Explosives.

5. Create an Abatis.

6. Create a lane through an obstacle.

7. Improve a vehicle lane through a minefield.

8. Conduct enemy or unobserved minefield clearing operations.

(2) Mine Warfare Tasks.

(a) Individual.

1. Install/Remove the M16A1 Antipersonnel Mine. (Korea only).
2. Install/Remove the M15 Antitank Mine.
3. Install/Remove the M19 Antitank Mine.
4. Install/Remove the M21 Antitank Mine.
5. Install/Remove U.S. Anti-handling Devices.

(b) MTP.

1. Install and recover or transfer a hasty protective minefield.
2. Emplace a tactical (standard pattern) minefield.
3. Emplace a tactical (Row) minefield.
4. Conduct an in stride breach of a minefield.
5. Emplace a tactical (scatterable) minefield.

d. Current DA policy for live mine training is as follows:

- (1) Training will be allowed with M15, M19, and M21 mines.
- (2) M16 training is restricted to units assigned to Korea only. See paragraph 6-9b.
- (3) All approved mines will be armed and disarmed not more than 25 iterations per mine.
- (4) No trip wires or booby traps will be used.
- (5) The use of tilt rods with live mines is prohibited.
- (6) Training with the M16 series anti-personnel mine will be done with the positive safety pin remaining in the M605 fuse.
- (7) No pre-1957 M605 fuzes will be allowed in training with the M16 anti-personnel mine.
- (8) Live mine training and simulators training will not take place concurrently at the same location in order to preclude a live mine being mistaken for an inert mine.

e. Commanders must conduct a risk assessment that supports the unit's mission essential task list.

f. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self destruct capabilities are authorized for training.

## 6-11. TADSS

### Engineer Bradley Fighting Vehicle (E-BFV).

a. Dummy Rounds. Various dummy rounds are available to conduct training with the M240C coax machine gun, the M242 25-mm automatic chain gun, and TOW system.

(1) M794 dummy round 25-mm with M28 link (DODIC A967). The dummy round is a non-fire replica of the 25-mm ammunition fired during BFV gunnery. It's a die cast metal round used to conduct various tasks related to the loading and unloading of the 25-mm ammunition ready boxes and the loading, firing, applying immediate action, unloading, and clearing the 25-mm automatic chain gun.

(2) M172 dummy round (7.62-mm). The M172 is a dummy 7.62 cartridge minus the gunpowder and primer. It's made of brass with a metal tip and is used to perform non-firing tasks related to the loading, firing, applying immediate action, unloading, and clearing the M240C coax machine gun.

(3) Missile simulator round (MSR). The MSR is a dummy TOW round casing that has been weighted to simulate the actual TOW round. The MSR is an inert assembly that comes in a crate and is a non-expendable major end item that is requisitioned through the supply system (NSN 1440-01-104-9834). The MSR is used to train tasks associated with uploading the BFV, upload the TOW launcher, applying immediate action on the TOW subsystem, removing a misfired TOW, and unloading and stowing a TOW to its storage configuration.

b. Laser Target Interface Device (LTID). The LTID permits PGS or MILES laser beams to activate the target scoring mechanisms on IRETS and SAAB lifters.

c. Multiple-Integrated Laser Engagement System (MILES). The MILES for the BFV enables the crew to use the vehicle in realistic combat training exercises (force-on-force). It also provides the commander an economical way to train and evaluate the crew's proficiency and coordination during gunnery target exercises.

d. M240C machine-gun. The M240C coax machine-gun may be used to fire BFV subcaliber tables III, IV, and V on 1/10-scale, 1/5 scale, 1/2scale and full-scale ranges. It may also be used on a full-scale range using 1/2 scale targets to allow the gunner to use proper ranging procedures.

e. Precision Gunnery System (PGS). PGS is a vehicle-appended gunnery-training device for the BFV that utilizes an eye-safe laser simulation device that provides normal and degraded mode gunnery on unit vehicles. It may be used in conjunction with MILES, TSV, the Hoffman device, automatic weapons effects signature simulator (ATWESS), and a mounting configuration allows the TOW to be fired in "simulation" while the 25-mm and coax are fired live. This device can support precision gunnery for Bradley tables (BT) I through XII and limited force-on-force training with main gun, coax, and TOW.

f. Thru-Sight Video (TSV). TSV is a vehicle-appended system that provides a video and audio recording of gunnery

or tactical engagement exercises in real time. It is used for vehicle gunnery training to provide an evaluation and critique of actual engagement sequences. The system consists of an on-vehicle video and audio recording of the gunner's sight picture which shows the date and time once the trigger is activated.

g. U-COFT and E-BFV. These are gunnery simulators that provide training in critical and procedural tasks for E-BFV gunners and commanders. The basis of issue is one U-COFT per active component (AC) E-BFV equipped battalion. It is used to sustain gunnery skills and enhance proficiency between periods of full-caliber live fire gunnery. The COFT consists of a crew training shelter that replicates the turret of a BFV, an instructor/operator station, and an integrated computer system capable of presenting an audiovisual replication of a combat environment. Computer-generated images are presented to the gunner and commander through the optics of the BFV fire control system. The U-COFT has the ability to train individual and collective operational procedures, target acquisition/identification, target engagement, and adjustment of fire using primary or alternate fire control systems.

h. The M88 is a device that trains the Volcano operators on the DCU-BIT test and on a total systems check. This device meets individual and unit-training requirements by allowing the crew to fire live canisters with inert mines and make minefield adjustments in dispersion.

i. The M89 is a non-firing training device for the Volcano system. The M89 can train the operator on the total Volcano system. The M89 is a programmable sensing device for fault isolation and identification. The M89 serves as the filler canister between the M88 canisters on the four corners.

j. The Placed Training Mine Kit (PTM), with anti-handling devices will satisfy the inert portion of both the individual and unit training standard. The PTM kit consists of 1 each M14AP, M15AT, M16AP, M18A1AP, M19AT, M21AT mines and anti-handling devices, and is a TASC item. The product number is DVC-T 05-41. No training is required with the M14AP mine.

k. The Wide Area Mine (Hornet) M98 is a training device used to accomplish the inert strategy. No live WAM firing is required at this time.

l. There are several training devices that may be used to satisfy mine-training standards in lieu of placed training mine kits. Some of these devices simulate the actual mechanical functioning of the service mine, while others are replicas or have smoke producing capabilities.

## 6-12. Training Device List

a. *Antitank Mine Training Devices.* (See table 6-48) The following devices are to be used to execute individual and unit training strategies. For some systems, similar devices can be interchanged to accomplish the same training objectives.

**Table 6-48**  
**Antitank Mine Training Devices**

Product title	Product number
Firing Device Demo M-1 (Inert)	DODIC M633 (Class V)
Firing Device Demo M-1 Pull (Inert)	DODIC M 635 (Class V)
Firing Device Demo M-3 Pull Release (Inert)	DODIC M637 (Class V)
Firing Device, M-5 Pressure Release (Inert)	DODIC M639 (Class V)
Firing Device Demo M-1 Pressure (Inert)	DODIC M641 (Class V)
Smoke Producing M21 AT Mine	DVC-T23-31 (TASC)
M21 AT Mine (Inert)	DVC-T23-33 (TASC)
AT Mine (Inert) for M15 AT Mine	M20 (Class V)
AT Mine (Inert) for M19 AT Mine	M80 (Class V)
Activator, AT Mine, Practice, M1	DODIC K002 (Class V)
Primer Igniter F/Mine Apers M8	DODIC K030 (Class V)
Igniter Assembly F/Mine Apers Practice M8	DODIC K031 (Class V)
Charge Spotting F/Mine Apers Practice M8	DODIC K040 (Class V)
AT Mine, Practice, Heavy	DODIC K231 (Class V)
Simulator Apers Mine Proj Practice M8	DODIC K270 (Class V)
Cap Apers F/Mine Practice M8	DODIC K271 (Class V)
Cap Apers F/Mine Practice M8	DODIC K280 (Class V)

**Table 6–48**  
**Antitank Mine Training Devices—Continued**

Wide Area Mine Individual Training M98

TBD

*b. Antipersonnel Mine Training Devices.* The training devices given at table 6–49 are available to conduct sustainment and unit training with antipersonnel mines. These devices simulate the actual mechanical functioning of service mines.

**Table 6–49**  
**Antipersonnel Mine Training Devices**

Product title	Product number
M16A1 Antipersonnel Mine (Inert)	DVC–T 23–34 (TASC)
M14 Antipersonnel Mine (Dummy)	DVC–T 23–38 (TASC)
Smoke Producing M16A1 Apers Mine	DVC–T 23–32 (TASC)
Mine Antipersonnel M8 Practice	DODIC K139 (Class V)

*c. Demolitions.* The training devices given at table 6–50 will be used with the primary demolition devices, i.e., C–4, to construct and install non-electrical and detonating cord firing systems.

**Table 6–50**  
**Demolition Training Devices**

Product title	Product number
Detonating Cord (Dummy) Reinforced	
Igniter Time Blasting Fuse, Practice	DODIC M767 (Class V)
Portable Remote-Ctr Demo Firing Control	DVC 21–03 (TASC)/ NSN 1375–00–621–8371
: Bangalore Torpedo	DVC–D5–43/ NSN 1375–00–908–6362
Non-electric Blasting Cap, 500 ft Shock Tube (M12)	NSN 1375–01–412–8813
Booster Demo Chg Prac 30ft M152 (Inert)	DODIC MN75 (Class V)/NSN 1375–01–470–2399
Cap Blasting Non electric Delay Time Fuse (Inert)	DODIC MN37 (Class V) NSN 1375–01–412–6346
	DODIC MN35 (Class V) NSN 1375–01–412–0013

*d. Munitions.* The Inert Selectable Lightweight Attack Munitions (SLAM) M299 is used to accomplish the inert strategy. No live SLAM firing is required at this time. Units in a post mobilization pre-deployment training status must fire a live SLAM.

### 6–13. Sample Munitions Requirements

General Requirements are provided below for 1 iteration of mine and demolition tasks. (NOTE: C–4 calculations are based on 1 1/4-pound blocks.)

*a. Individual Demolition Tasks.* (Note: Individual demolition task amount are not utilize in the calculations for unit training in the following table found in the chapter).

- (1) Construct a non-electric initiating detonating assembly and prime explosives non-electrically:
  - (a) One 1 1/4 block C–4 M023.
  - (b) One Igniter MN08.
  - (c) One MN69 M152 30ft Booster
- (2) Prime explosives with detonating cord:
  - (a) One 1/4 lb. Block of C–4 M023.
  - (b) One fuse igniter MN08.
  - (c) One M–14 MN06.
  - (d) Twelve foot detonating cord.
- (3) Install and remove the M16A1 antipersonnel mine: M16A1 AP mine or PTM Kit. (Korea only).

- (4) Install and remove the M15 antitank mine: M15 AT mine or PTM Kit.
  - (5) Install and remove the M19 antitank mine: M19 AT mine or PTM Kit.
  - (6) Install and remove the M21 antitank mine: M21 AT mine or PTM Kit.
  - (7) Install and remove the anti-handling devices: PTM Kit.
- b. Squad Tasks.*
- (1) Install and recover or transfer a hasty protective minefield: PTM kit or dummy inert mines.
  - (2) Create a crater obstacle with explosives (three- hole hasty crater, dual primed):
    - (a) Three shape charges (15 or 40 lb.) M420.
    - (b) Three cratering charges M039.
    - (c) Twenty-four blocks of C-4 (30 lbs.) M023.
    - (d) Two hundred feet detonating cord M456.
    - (e) Two M81 igniters MN08.
    - (f) One M14 MN06.
    - (g) One M23, Mini Tube, MN90 1000 ft.
    - (h) One M21, MN88.
    - (i) Six M152 (MN69) or M15 MN 68 or M152MN69.
    - (j) Six M9, ML45.
  - (3) Breach obstacles with explosives:
    - (a) 100 blocks of C4 M023.
    - (b) 100 Igniters M81.
    - (c) 60 J Hooks.
    - (d) 500 ft. Det Cord M456.
    - (e) 60 M152 (MN69) or M151 (MN68).
    - (f) 1 M21, MN88 Mini Tube 500 ft.
    - (g) 1 Time delay (20 minutes) M 15.
  - (4) Disable bridge with explosives: (No live demolitions are required to train this task).
  - (5) Breach obstacles other than minefields:
    - (a) 3 charges of 10 lbs. of C4.
    - (b) 3 each M152 (MN69) or M151 (MN68).
    - (c) 1 each M21, MN88.
    - (d) 1 each M14, MN06.
    - (e) 1 each M23, Mini Tube MN90 1000ft.
    - (f) 2 each M81, Igniter.
    - (g) 200 ft. Det Cord, M456.
  - (6) Construct an abatis (six trees at 24" using  $P=D^2/50$ ; seven packages of C-4 per tree (dual primed)):
    - (a) 49 blocks of C-4 (52.5 lbs).
    - (b) Two M14 MN06.
    - (c) Two M81 Igniters MN08.
    - (d) Six M151 (MN68) or M152 (MN69).
    - (e) 60 ft. Det Cord, M456.
  - (7) Conduct an In Stride Breach of a minefield: dummy inert mines (No live demolitions are required to train this task).
  - (8) Breach Obstacles:
    - (a) Sixteen blocks of C-4 (20 lbs).
    - (b) One M14 MN06.
    - (c) One M81 Igniter MN08.
    - (d) Two M152 (MN69) or M151 (MN68).
- c. Platoon Tasks.*
- (1) Emplace munitions using the inert Hornet minefield: inert mines.
  - (2) Emplace standardized row minefield: inert mines.
  - (3) Emplace a scatterable minefield:
    - (a) M136 MOPMS.
    - (b) Volcano with M88/M89 training mine canisters.
  - (4) Disable a LOC/airfield: No live demolitions are required to train this task.
  - (5) Breach obstacles (wire obstacles) (Ammunition requirements for this task allow for initiation and detonation of 5 each, two section bangalore torpedoes.):

- (a) One Bangalore torpedo kit.
- (b) Three M152 (MN69) or M151 (MN68).
- (c) One M14 MN06.
- (d) One M81 Igniter MN08.

#### 6-14. Development

a. Training programs have been developed for each engineer unit type. The standards are supported by training strategies, which, if followed, will enable the commander to attain and sustain the weapons proficiency of his Soldiers. Inert training to standard is required prior to live fire training. Resources are applied to the training standards and strategies as written. The commander has the flexibility to modify both the training strategy and resource usage as long as the training standards are met.

b. The quantities of munitions required by tasks for one iteration of the SM and MTP tasks in the training programs are summarized in paragraph 6-10.

c. This chapter does not identify training strategies or resources for "operational" use of demolitions. "Operational" in this sense means the day-to-day, base operations requirement for demolitions normally associated with EOD units and Quarry Sections. All other units are addressed in this chapter.

#### 6-15. Modernized Demolition Initiator (MDI)

a. Modernized Demolition Initiator (MDI). A new non-electric initiator replacing the Army's conventional systems (Electric and non-electric).

(1) MDI was phased in starting in FY96. New Equipment Training Teams have completed training in units.

(2) MDI is faster to employ and affords a better way to control the firing of demolition targets. This will improve commander's ability to rapidly counter the threat's movements, reduce the manpower required to employ and initiate demolition missions. The MDI initiating system will introduce new techniques that will reduce the time spent on target and reduce the number of soldiers required accomplishing the mission. MDI is safer than current demolition initiators to transport, employ, and ignite.

(3) MDI will be used in accordance with FM 5-250, Explosives and Demolitions.

b. Characteristics, description and functions of the MDI:

(1) Holder: Blasting Cap and Shock Tube, M9, DODIC ML45.

(2) M152 (MN69) Det Cord 30ft Military Cap (No. 12).

(3) Cap, Blasting: Non-electric 500ft Shock Tube, M21, DODIC MN88.

(4) M23, Mini Tube MN90 1000ft.

(5) Cap, Blasting: Non-electric, Delay, M14, DODIC MN06.

(6) Cap, Blasting: Non-electric, Delay, M15, (optional 200 or 25 m sec), DODIC MN07.

(7) Cap, Blasting: Non-electric, 10-ft length M151 DODIC MN68 is similar to M152 (MN69).

(8) Cap, non-electric Blasting Delay M18 DODIC MN41 (20 minute burn length).

(9) Igniter, time Blasting Fuse: M81, DODIC MN08 with shock tube capability.

c. General Description. Modernized Demolition Initiators (MDI) is the project name given to a new family of non-electric blasting caps and associated items being introduced in 1996 to replace the M7 Non-electric Blasting Cap and the M6 Electric Blasting Cap. The snap-together MDI components will allow simplification of initiation systems and of some types of explosive priming. MDI will also improve reliability and safety. One reason for this reliability is the fact that all of the components are sealed and, unlike standard non-electric priming components, cannot be easily degraded by moisture.

(1) Shock Tube. A thin plastic tube of extruded polymer with a layer of special explosive material deposited on its interior surface. This special explosive dust propagates a detonation wave, which is normally contained within the plastic tubing; along the shock tube to a factory crimped and sealed blasting cap (and thus moisture resistant). Shock tube must be cut, enabling insertion into the M81 igniter. After cutting, shock tubes are susceptible to moisture. Shock tube offers the instantaneous action of electric initiation without the risk of accidental initiation of the blasting cap (and the charge) by radio transmitters in the area, or by static electricity discharge. The shock tube medium is extremely reliable.

(2) **WARNING:** Although the detonation along the shock tube is normally contained within the plastic tubing, burns may occur if the shock tube is held in your hands.

(3) Blasting Caps. Each shock tube-blasting cap is a factory crimped and sealed unit that is resistant to moisture (unlike standard non-electric blasting caps) and extremely reliable.

(a) The high strength MDI blasting caps are the M152 (MN69), M14, and M151. All are non-electric types and two (M152 MN69, M151) come with a length of shock tube attached. The M14 consists of military strength and size non-electric blasting cap, factory crimped to a length of M700 Time Blasting Fuse (factory-calibrated for a minimum five-minute delay).

(b) The two new low strength MDI blasting caps are the M21 and M23. These relay-type blasting caps come with

factory-attached lengths of shock tube (500 feet for the M21 and 1000 feet for the M23). The detonators of the relay-type caps are purposely made larger than standard military blasting caps (and the high strength MDI blasting caps) so they will NOT fit in standard cap wells. All of the low strength shock tube blasting caps comes with a special plastic clamp attached to the detonator to facilitate quick and easy attachment to the shock tube of another blasting cap or to detonating cord.

(4) Blasting Cap Holder, M9. A plastic blasting cap holder will allow connection of several shock tubes to a high strength M152 (MN69) or M14 blasting cap. The M9 Holder facilitates secure connection of up to five shock tubes to the high strength detonation of an M152 (MN69) or M14 blasting cap. The M9 Holder can also be used to connect the M152 (MN69) or M14 blasting cap to detonating cord.

(5) Time Blasting Fuse Igniter, M81. A new more powerful igniter will initiate the shock tube ends of the new blasting caps. The M81 is almost identical to the older M60 Igniter with the exception being that the M81 has the screw end cap and shipping plug colored black and accommodates either the thin shock tube or standard diameter Time Blasting Fuse, M700. The M60 Igniter will not physically secure the shock tube nor reliably initiate it. Non-electric Blasting Cap M152 (MN69) can be used to prime all standard military explosives (including detonating cord) or to initiate shock tube of other MDI blasting caps. The M152 (MN69) is a high strength blasting cap factory crimped to a 30-foot length of shock tube. The M152 functions by transmitting an initiating shock or small detonation through its shock tube into its blasting cap.

(6) The M151/M152 Non-Electric Booster- Is used as a branch line to a primed charged (above or below the ground). It can ignite the M152 (MN69), M151, M21/M13, M151/M152 or standards detonating cord. The booster itself has the same strength as a #12 common cap, however, it contains only secondary explosives, no primary and will still fit into standard military cap wells. The M151 (10 ft.) and M152 (30 ft.) is factory crimped length of low strength detonating cord, detonating velocity is 19500 fps vs. 25000 fps found on standard detonating cord. The M151 is also used to control simultaneous charge demolition (e.g. bridge demolition). The two ID flags on the M151 are to ID it from other components. It also has a J-hook connector used to connect the component to standard detonating cord.

(7) **Note: Never ignite** the M151/M152 directly from the M81 igniter. **Do not** secure the M151/M152 and shock tube components in the same holder. The M151/M152 **MUST** be fully uncoiled and cannot cross itself or other components. It is used to pre-charge (do not use low strength detonating cord to lower charges into holes). Use the J-hook to secure to standard detonating cord. Plugged and sealed end makes components moisture resistant. There is no need to cut away excess cord and provides increased reliability due to the blasting cap being pre-crimped.

(8) Special applications using electric and non-electric initiating systems may be continued under unique situations. MDI will be used for individual/collective demolitions task initiations and considered to be the normal application.

(9) *The "In Lieu after table. table 6-51 below will be utilized effective FY06 to order MDI items.*

**Table 6-51**  
**MDI in Lieu of DODICs/Nomenclature<sup>1</sup>**

Tactical Item FY06 STRAC DODIC / Nomen	Inert Item DODIC / Nomen	Tactical item "In Lieu Of" DODIC/ Nomen	Inert Item "In Lieu Of" DODIC / Nomen
MN68 / M151 (Priming)	MN75 / M152 Inert	No Acceptable Substitution	N/A
MN69 / M152 (Priming)	MN75 / M152 Inert	No Acceptable Substitution	N/A
MN07 / M15 (Priming)	MN38 / M15 Inert	No Acceptable Substitution	N/A
MN74 / MK171 Adaptor	MN74 / MK171 Adaptor	No Acceptable Substitution	N/A
MN88 / M21 (Priming, Transmission, and Initiation)	MN89 / M22 Inert	(MN02 / M12) + (MN68 / M151 or MN69 / M152) + (MN08 / M81) + (ML45 / M9)	(MN35 / M12 Inert) + (MN75 / M152 Inert) + (ML45 / M9)
MN90 / M23 (Priming, Transmission, and Initiation)	MN89 / M22 Inert	(MN03 / M13) + (MN68 / M151 or MN69 / M152) + (MN08 / M81) + (ML45 / M9)	(MN35 / M12 Inert) + (MN75 / M152 Inert) + (ML45 / M9)
MN86 / M19 (Note) (Priming, Transmission, and Initiation)	MN87 / M20 Inert	2ea. (MN02 / M12) + 2ea. (MN68 / M151 or MN69 / M152) + 2ea. (MN08 / M81) + 2ea. (ML45 / M9)	2ea. (MN35 / M12 Inert) + 2ea. (MN75 / M152 Inert) + 2ea. (ML45 / M9)
ML45 / M9	ML45 / M9	ML45 / M9	ML45 / M9
MN06 / M14 (Initiation)	MN37 / M14 Inert	MN41 / M18	MN37 / M14 Inert
MN41 / M18 (Initiation)	MN37 / M14 Inert	No Acceptable Substitution	N/A

**Table 6-51**  
**MDI in Lieu of DODICs/Nomenclature<sup>1</sup>—Continued**

MN08 / M81 (Initiation)	MN08 / M81 Expended	No Acceptable Substitution	N/A
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Notes:

<sup>1</sup> The "In Lieu Of "substitution listed for the MN86 / M19 is not acceptable for Urban Operations. The increased number of components, additional weight and volume will not support the operational or sustainment training requirement.

#### **6-16. Live demolitions used as devices.**

*a.* Demolition Effects Simulators (DES). A device using live demolitions.

(1) DES offers units the opportunity to use minimal explosives and increase repetitions of demolition events. The DES also reduces the normal risk associated with larger demolition charges. Stand off safe distances are to be calculated and enforced using the charge (pounds) being replicated.

(2) All safety precautions used for explosives and demolitions will be followed.

*b.* DES devices have the same basic components with packaging being the main difference. DES produces sufficient visual and sound effects to enhance battlefield training realism.

*c.* Commanders and supervisors are encouraged to use their allocation of detonation cord and initiators to train one event several times by constructing DES charges.

*d.* DES charges will be constructed as detailed in TC 5-250, Demolition Effects Simulations.

#### **6-17. Special Operations Forces - Demolition Kit**

*a.* The SDK-UOS consists of a variety of inert shapes. Each shape is designed to create a specific explosive effect like linear cutting, Explosively Formed Penetrator (EFP) firing, or conical shaped charge employment. The kit includes a variety of fastening devices and tools to affix specialized charges to targets. EFP charges can be mounted on tripods, aimed, and fired at a range of up to 50 meters away to neutralize targets from a stand-off.

*b.* The SDK-UOS will also provide a stand-alone capability set, which will reduce the required safety standoff distances. The Soldier will reduce the MSDs through the employment of blast protection devices and hearing protection devices. Additionally when an explosive event is not acceptable, a capability to non-explosively cut through material will be provided.

*c.* Block I: The basic SDK-UOS will consist of inert shapes, platters and fixtures, attachment devices, and waterproofing aids. With the addition of C4, the operator will be able to construct target specific Explosively Formed Penetrator (EFP) charges, shaped charges, and linear shaped charges. For a list of all the items shown above please reference TM 1375 and Annex. All components are inert Class VII expendable items that can easily be re-ordered to re-stock the kit.

*d.* Block II: Will add UOS devices that will take advantage of Commercial off the Shelf (COTS) and Non-Developmental Items (NDI), which will add hearing, blast, and fragmentation protection. That will ultimately reduce the required Minimum Safe Distances (MSD) requirement in Army doctrine to safely perform breaching operations. In addition, the Block II effort will provide a capability to non-explosively cut through material. The SDK-UOS will be capable of defeating overpressure created from an explosive event to a level of 2.0 Pounds per Square Inch as recognized as the Army standard in AR 685-63. The 3.4 PSI is recognized as the acceptable standard in the Navy and Marine Corps and the Army is moving to adopt this as a joint standard. Additionally the SDK-UOS will simultaneously provide protection against fragmentation at the same distances determined by the PSI levels. The hearing protection provided by the SDK-UOS will protect against noise levels in excess of 80 decibels deemed hazardous by the Surgeon General. The non-explosive breaching tool will cut light masonry, brick, reinforced concrete or concrete block of thickness of up to 4 inches where explosive breaching is not practical. Block II will also assess any new technologies in attaching charges to the target.

#### **6-18. Combat Engineer and Bridge Units(Active Component)**

*a.* *AT and AP mine training standard.*

(1) Ninety percent of the assigned Soldiers with a SM requirement must have employed mines to SM standards (tasks: Install and remove the M15 AT mine, M19 AT mine, M21 AT mine and inert US anti-handling devices on AT mines) within the past 12 months. **Note:** Each Combat Engineer Squad is allocated 1 each live M15AT, M19AT and M21AT mine in accordance with table 6-51. The Presidential Land Mine Policy is effective in FY10. To date, for units to receive the allocated training mines units will request mines through their Army Commands and Army Services Component Commands. Each Combat Engineer must arm and disarm each type of live mine allocated to meet the individual training requirement. The M21AT mine will not be employed in the tilt rod mode. Only inert anti-handling devices will be used in training on inert mines (PTM Kit). (Live anti-handling device can be used on inert metallic mines to achieve the training strategy. (See table 6-50).



(2) All Combat Engineer squads and platoons must have met MTP standards (tasks: Install/recover a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical (ROW minefield) within the past 12 months.

(3) All bridge crews with an MTP requirement must have employed inert mines to MTP standards (task: Install/recover or transfer a hasty protective minefield) within the past 12 months.

(4) When training with a live M16A1 AP mine, trip wires will not be used. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

*b. Demolitions training standards.*

(1) Ninety percent of the assigned Soldiers with a SM requirement must have constructed demolition firing systems and primed explosives for live fire to SM standards (tasks: Construct an MDI detonating assembly, prime explosives with MDI and prime explosives with detonating cord) within the past 6 months.

(2) All Combat Engineer squads with an MTP requirement must have employed inert and live demolitions to MTP standards (tasks: Disable bridge with explosives, Construct an abatis and Breach obstacles) in accordance with the frequencies in table 6–52. MTP standard for the task, construct an abatis, states that an abatis must be 75 meters long; however, the requirement is for a six tree abatis.

(3) All bridge crews must employ inert demolitions to MTP standards (task: disable organic bridge) within the past 6 months.

(4) Shaped charge/Cratering charge standard. All Combat Engineer squads must have employed inert and live demolitions to create a three-hole hasty road crater to MTP standards (tasks: create a crater obstacle with explosives, and disable a LOC/airfield) within the past 6 months.

(5) Bangalore torpedo standard. All Combat Engineer platoons must have employed a live Bangalore torpedo to MTP standards (task: breach obstacles (wire obstacle)) within the past 6 months [See paragraph.

(6) MOPMS standard. All Combat Engineer squads and bridge crews must have participated in the installation and recovery of the MOPMS Training Dispenser (M136) to operator's manual standards (task: Emplace a tactical (scatterable) minefield) within the past 6 months.

(7) MICLIC standard.

(a) Combat Engineer companies must have employed the MICLIC to MTP standards (task: conduct an in stride breach of a minefield) using three inert line charges at home station within the past 12 months.

(b) Units will fire live MICLIC during National Training Center (NTC) and Combat Maneuver Training Center (CMTC) rotations, depending on availability. Combat Training Centers (CTC) will be separately resourced to provide two live MICLIC charges per company per rotation.

(8) **Warning:** Launch of the line charge by personnel outside of an armored vehicle is prohibited. The charge cannot detonate until the arresting cable is fully extended and the fuze arms. Under certain circumstances the line charge can prematurely detonate in the air. This presents no danger to personnel in a "buttoned up" armored vehicle but could put personnel in danger in open areas in accordance with TM 9–1375–215–14&p.

(9) Volcano standard.

(a) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have conducted the DCU–BIT Test to operator's manual standards within the past 6 months.

(b) The Assault & Obstacle Platoon and/or section must have successfully employed the Volcano with the M88 and the M89 training device to MTP standards (task: Emplace a tactical (scatterable) minefield) within the past 6 months. M88s are fired from the four corners only; M89s fill all other positions.

*c. Training strategy.* Training standards for each system are given below. Recommended training strategies for all systems are given in table 6–52 (Individual Training), table 6–53 (Unit Training). The ammunition requirements for all systems are given in table 6–54.

**Table 6–52**  
**Annual Individual Training for Combat Engineer/Bridge Crewman (Active)**

Event	Freq <sup>4</sup>
<b>Demolitions<sup>1</sup></b>	
<b>MDI detonating assembly</b>	
Prime explosives with MDI	4
Prime explosives with Det cord	4
<b>Mine Warfare Installation/Removal<sup>2</sup></b>	
M16AP Mine (Korea only)	4
M15AT Mine	4
M19AT Mine	4
M21AT Mine	4
U.S. Anti-handling Devices <sup>3</sup>	4

Notes:

<sup>1</sup> Frequency allows for 2 live fire qualification exercises and 2 inert sustainment exercises.

<sup>2</sup> Combat Engineer: Frequency allows for 1 live fire qualification exercise and 3 inert sustainment exercises.

<sup>3</sup> Bridge Crewmen: Frequency allows for 1 inert qualification exercise and 3 inert sustainment exercises.

<sup>4</sup> Frequency allows for 2 exercises using live anti-handling devices on inert metallic mines and 2 exercises using inert anti-handling devices on inert mines.

**Table 6–53**  
**Annual Unit Training for Combat Engineer/Bridge Units (Active) <sup>1, 2</sup>**

Tasks	Freq	Munitions/System	Event
Create a Crater Obstacle with Explosives	2/Live/Qualify	Shaped Charge	LFX, CALFEX, MTP
	2/Inert/Sustain	Cratering Charge	
		C–4	
Disable Bridge With Explosives	2/Inert/Qualify		MTP
	2/Inert/Sustain	C–4	FTX
Disable Organic Bridge	1/Inert/Sustain	C–4	MTP
	2/Inert/Sustain		FTX
Construct an Abatis	1/Live/Qualify		LFX, CALFEX
	1/Inert/Sustain	C–4	FTX, MTP
Breach Obstacles (other than Minefields)	2/Live/Qualify	C–4	LFX, CALFEX
	2/Inert/Sustain		FTX, MTP
Breach Obstacles (Wire Obstacle)	2/Live/Qualify		LFX, CALFEX
	2/Inert/Sustain	Bangalore	FTX, MTP
Breach Minefields using Explosives	2/Live/Qualify	C–4	LFX, CALFEX
	2/Inert/Sustain		FTX, MTP
Install/Recover a Hasty Protective Minefield	1/Inert/Qualify		MTP
	2/Inert/Sustain	AT, AP Mines	FTX
Conduct an In Stride Breach of a Minefield <sup>1</sup>	4/Inert/Qualify	MICLIC	LFX, CALFEX
	Note 2	Inert Line Charge	FTX, MTP
Disable LOC/Airfield With Explosives		Shaped Charge, C–4	MTP
	2/Inert/Sustain	Crater Charge	FTX
Emplace a Tactical Minefield (ROW)	1/Inert/Qualify	AT, Mines	MTP
	2/Inert/Sustain		FTX

**Table 6-53**  
**Annual Unit Training for Combat Engineer/Bridge Units (Active) <sup>1, 2</sup>—Continued**

Emplace a Tactical Minefield (Scatterable)		MOPMS	MTP
	2/Inert/Sustain		FTX
Emplace a Tactical Minefield (Scatterable)	2/Inert/Qualify	Hornet	MTP
			FTX
Emplace a Tactical Minefield (Scatterable)	2/Live/Qualify	Volcano (M88/M89)	LFX
			CALFEX

Notes:

<sup>1</sup> Home station includes four inert line charge firings as stockages allow support. Home station ranges must be adequate for safe distance.

<sup>2</sup> USAREUR/7ATCAuthorized two each live M913 MICLIC line charges "as available".

**Table 6-54**  
**Annual Ammunition Requirements for Combat Engineer/Bridge Units (Active) <sup>5</sup>**

Munitions	DODIC	Bn Hvy Div CBT ENG	Sep Co CBT ENG	Bridge	Mine Dog Det
Bangalore Torpedo	M028/MP03 <sup>6</sup>	18	9		2
Booster Demo 10 ft Det Cord M151	MN68 <sup>4</sup>	913	427	222	48
Booster Demo 30 ft Det Cord M152	MN69 <sup>4</sup>	913	427	22	48
Cratering Charge(40lb.)	M039	108	54		6
Demolitions-TNT(1lb.) <sup>3</sup>	M032				
Demolitions-TNT(1/4lb) <sup>3</sup>	M030				
Demolitions-C4(1 1/4lb) <sup>3</sup>	M023	3042	1521	426	169
Detonating Cord(FT)	M456	18360	9180	2173	1020
Holder M9	ML45	687	322	164	36
Inert Line Charge <sup>1</sup>	M914	4	1		0
Igniter M81	MN08	963	448	229	49
M15AT Mine	K180	18	9		1
M16A1AP Mine (Korea only)	K092	18	9		0
M19AT Mine	K250	18	9		0
M21AT Mine	K181	18	9		1
M88 Volcano <sup>2</sup>	K042	24	8		0
M152 30ft Booster	MN69	103	48	25	5
Non-electric Cap M21	MN88	102	53	27	6
Non-electric Cap M23	MN90	102	53	27	6
Non-electric Cap M14	MN06	828	377	193	41
Rocket (5 inch)	J143	12	4		0
Shaped Charge(15 or 40lb)	M420	108	54		6

Notes:

<sup>1</sup> Inert Line Charge can be reused 3 times before replacement is required.

<sup>2</sup> M88 canisters will be fired from the four corners only; all other positions will be filled with M89 canisters (Total canisters per year).

<sup>3</sup> If C-4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C-4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb package size. This table combines individual and unit demolition quantities.

<sup>4</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for the Hvy Div CBT Engr/ CMBT Engr/ Bridge.

<sup>5</sup> Warning: Launch of the line charge by personnel outside of an armored vehicle is prohibited. Under certain circumstances the line charge can prematurely detonate in the air. The charge cannot detonate until the arresting cable is fully extended and the fuze arms. This presents no danger to personnel in a "buttoned up" armored vehicle but could put personnel in danger in open areas.

<sup>6</sup> Mine Dog Detachment will draw Scent Kits from local Training Aids, Devices, Simulations, and Simulators Center as needed.

## 6-19. NG/NG BCT/Reserves

### *a. AT and AP Mine training standard.*

(1) Eighty percent of the assigned Soldiers with a Soldier's Manual requirement must have employed inert mines to Soldier's Manual standards (tasks: Install/remove the M15 AT mine, M19 AT mine, M21 AT mine and inert US anti-handling devices) every 12 months. (Live anti-handling devices can be used on inert metallic mines to achieve the training strategy. See table 6-53.).

(2) All Combat Engineer squads and platoons must have met MTP standards (tasks: Install/recover a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical minefield) using inert mines every 12 months.

(3) All bridge crews must have employed inert mines to MTP standards, (task: Install/remove or transfer a hasty protective minefield) every 12 months. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines (TRC C exception is provided in Chapter 9). A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

### *b. Demolitions training standards.*

(1) Eighty percent of the assigned Soldiers with a Soldier's Manual requirement, must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: construct an MDI detonating assembly, prime explosives with MDI, and Prime explosives with detonating cord) every 12 months.

(2) All Combat Engineer squads must have employed inert and live demolitions to MTP standards (tasks: Disable a bridge with explosives, Construct an abatis and Breach obstacles) in accordance with the frequencies in table 6-52 every 12 months.

(3) All bridge crews must have employed inert demolitions to MTP standards (task: Disable organic bridge) every 12 months.

(4) Shaped charge/Cratering charge standard. All Combat Engineer platoons and squads must have employed inert demolitions for a 3-hole hasty road crater to MTP standards (tasks: Create a crater obstacle with explosives and disable a LOC/airfield every 12 months.

(5) Bangalore torpedo standard. All Combat Engineer Company/platoons must have employed an inert Bangalore torpedo to MTP standards (task: Breach Obstacles (wire obstacle) every 12 months.

(6) MOPMS standard. All Combat Engineer squads and bridge crews must have participated in the installation and recovery of the MOPMS Training Dispenser (M136) to operator's manual standards (task: Emplace a tactical (scatterable) minefield) every 12 months.

### *(7) MICLIC standards.*

(a) All Combat Engineer Companies will employ inert MICLICs to MTP standards (task: Conduct an in stride breach of a minefield) every 12 months.

(b) Units will train the inert systems at home station and fire live MICLIC during National Training Center (NTC) rotations depending on availability. NTC will be separately resourced to provide two live MICLIC charges per company per rotation.

### *(8) Volcano standard.*

(a) Eighty percent of the assigned Soldiers with a Soldier's Manual requirement must have conducted the DCU-BIT Test to operator's manual standards every 12 months.

(b) The Assault & Obstacle Platoon/Section must have successfully employed the Volcano with the M88 and the M89 training device to MTP standards (task: Emplace a tactical (scatterable) minefield) every 12 months.

*c. Training strategy.* Training standards for each system are given below. Recommended training strategies for all systems are given in table 6-55 (Individual Training), table 6-56 (Unit Training). The ammunition requirements for all systems are given in table 6-57.

**Table 6–55**  
**Annual Individual Training for Combat Engineer/Bridge Crewmen (NG/NG BCT/USAR)**

Event	Freq
<b>Demolitions<sup>1</sup></b>	
Construct MDI detonating assembly	3
Prime explosives with MDI	0
Prime explosives with Det cord	3
<b>Mine Warfare Installation/Removal<sup>2</sup></b>	
M15AT Mine	3
M19AT Mine	3
M21AT Mine	3
U.S. Anti handling Devices (Inert Only) <sup>3</sup>	3

Notes:

<sup>1</sup> Frequency allows for 1 live fire qualification exercise and 2 inert sustainment exercise.

<sup>2</sup> Frequency allows for 1 inert qualification exercise and 2 inert sustainment exercises.

<sup>3</sup> Frequency allows for 1 live anti-handling device exercise on inert metallic mines.

**Table 6–56**  
**Annual Unit Training Combat Engineer/Bridge Units (NG/NG BCT/USAR)**

Tasks	Freq	Munitions/System	Event
		Shaped Charge	
Create a Crater Obstacle With Explosives	1/Inert/Qualify	Crater Charge	FTX, MTP
		C–4	
Disable Bridge With Explosives	1/Inert/Qualify	C–4	FTX, MTP
Disable Organic Bridge	1/Inert/Sustain	C–4	FTX, MTP
Construct an Abatis	1/Inert/Qualify	C–4	FTX, MTP
Breach Obstacles (other than Minefield)	1/Live/Qualify	C–4	LFX, CALFEX
	1/Inert/Quality	C–4	FTX, MTP
Breach Obstacles (Wire Obstacle)	1/Inert/Qualify	Bangalore	FTX, MTP
Breach Minefield using Explosives	1/Live/Qualify	C–4	LFX, CALFEX
	1/Inert/Sustain		FTX, MTP
Install/Recover/Transfer a Hasty Protective Minefield	1/Inert/Qualify	AT, AP Mines	FTX, MTP
Conduct an in stride of a Minefield	1/Inert/Qualify	MICLIC Rocket 5 inch	LFX, CALFEX
		Inert Line Charge	FTX, MTP
Disable LOC/Airfield With Explosives	2/Inert/Sustain	Shaped Charge, C–4	FTX
		Crater Charge	MTP
Emplace a Tactical Minefield (Hornet)	1/Inert/Qualify	AT, Mines	MTP
Emplace a Tactical Minefield (ROW)	1/Inert/Qualify	AT, Mines	MTP
Emplace a Tactical Minefield (Scatterable)	1/Inert/Qualify	Volcano (M88/M89)	FTX, MTP
Emplace a Tactical Minefield (Scatterable)	2/Inert/Qualify	MOPMS (M136)	MTP

**Table 6–57**  
**Annual Ammunition Requirements for Combat Engineer/Bridge Units (NG/NG BCT/Reserves) <sup>5, 6</sup>**

Munitions	DODIC	Bn	Sep Co CBT ENG	Bridge
Bangalore Torpedo	M028/MP03 <sup>7</sup>	4	1	
Booster Demo 10 ft Det Cord M151	MN68 <sup>4</sup>	114	49	97
Booster Demo 30 ft Det Cord M152	MN69 <sup>4</sup>	114	49	97
Cratering Charge (40 lb.)	M039	24	6	
Demolitions - TNT (1 lb.) <sup>3</sup>	M032			
Demolitions - TNT (1/4 lb.) <sup>3</sup>	M030			
Demolitions - C4 (1 1/4 lb.) <sup>3</sup>	M023	1319	324	213
Detonating Cord (Ft)	M456	3203	1378	1704
Holder M9	ML45	108	47	60
Igniter M81	MN08	107	46	90
Inert line Charge <sup>1</sup>	M914	1	1	
M15AT Mine	K180	0	0	
M19AT Mine	K250	0	0	
M21AT Mine	K181	0	0	
M88 (Volcano) <sup>2</sup>	K042	24	8	
M152 30ft Booster	MN69	13	6	11
Non-electric Cap M21	MN88	65	28	27
Non-electric Cap M23	MN90	65	28	27
Non-electric Cap M14	MN06	65	28	18
Rocket (5 inch)	J143	3	1	
Shaped Charge (15 or 40 lb.)	M420	24	6	

Notes:

<sup>1</sup> Inert Line Charge will be reused 3 times before replacement.

<sup>2</sup> Battalion authorizations may reduce with TOE changes. Four M88s per company is constant.

<sup>3</sup> M88 canisters will be fired from the four corners ONLY. All other positions will be filled with M89 canisters.

<sup>4</sup> If C–4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb package size. This table combines individual and unit demolition quantities.

<sup>5</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for the Hvy Div CBT Engr/ CMBT Engr Bridge.

<sup>6</sup> Warning: Launch of the line charge by personnel outside of an armored vehicle is prohibited. Under certain circumstances the line charge can prematurely detonate in the air. The charge cannot detonate until the arresting cable is fully extended and the fuse arms. This presents no danger to personnel in a “but-toned up” armored vehicle but could put personnel in danger in open areas.

<sup>7</sup> The MP03 5ft Bangalore will be issue until current supply is exhausted. (2.5ft BL will replace 5ft BL)

## 6–20. Light Engineer Units (Active Component)

### *a. AT and AP mine training standard.*

(1) Ninety percent of the assigned Soldiers with a Soldier’s Manual requirement must have employed mines to Soldier’s Manual standards (tasks: Install/remove M15 AT mine, M19 AT mine, M21 AT mine and US anti-handling devices on AT mines) within the past 4 months. Note: Each Engineer Squad is allocated 1 each live M15AT, M19AT and M21AT mine in accordance with tables 6–57 and 6–58. Each Combat Engineer must arm and disarm each type live mine allocated to meet the individual training requirement. The M21AT mine will not be employed in the tilt rod mode. Only inert anti-handling devices will be used in training on inert mines (PTM Kit). Live anti-handling device can be used on inert metallic mines to achieve the training strategy. (See table 6–56).

(2) All Combat Engineer squads must have met MTP standards (tasks: Install/recover a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical (ROW) minefield) within the past 12 months. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

### *b. Demolitions training standard.*

(1) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI detonating assembly, prime explosives with MDI and prime explosives with detonating cord) within the past 4 months.

(2) All Combat Engineer squads with an MTP requirement must have employed inert and live demolitions to MTP standards (tasks: Disable bridge with explosives, Construct an abatis and Breach obstacles) in accordance with the frequencies in table 6-56. Note: The MTP standard for the task, Construct an Abatis, states that an Abatis must be 75 meters long; however, the requirement is for a 6 tree Abatis.

(3) Shape charge/Cratering charge standard. All Combat Engineer squads must have employed inert and live demolitions to create a 3-hole hasty road crater to MTP standards (task: Create a crater obstacle with explosives, and Disable a LOC/airfield) within the past 6 months.

(4) Bangalore torpedo standard. All Combat Engineer platoons must have employed a live Bangalore Torpedo to MTP standards (task: Breach Obstacle (wire obstacle) within the past 6 months).

(5) MOPMS standard. All Combat Engineer squads and bridge crews must have participated in the installation and recovery of the MOPMS Training Dispenser (M136) to operator's manual standards (task: Emplace a tactical scatterable minefield within the past 6 months).

(6) MICLIC standard. All Combat Engineer Companies (Abn) must have employed the MICLIC, to MTP standards (task: Conduct an in stride breach of a minefield) using three inert line charges at home station within the past 12 months).

(7) Volcano standard.

(8) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have conducted the DCU-BIT Test to operator's manual standards within the past 6 months.

(9) The Assault & Obstacle Platoon/Section must have successfully employed the Volcano with the M88 and the M89 training device to MTP standards (task: Emplace a tactical scatterable minefield within the past 6 months).

(10) Munitions standard. All Combat Engineer squads must have employed inert Selected Lightweight Attack Munitions (SLAM) 6 times a year. This strategy requires a pre-deployment firing of a live SLAM at a ratio 1 SLAM to 10 Soldiers.

c. *Training strategy.* Training standards for each system are given below. Recommended training strategies for all systems are given in table 6-58 (Individual Training), table 6-59 (Unit Training). This includes Individual and Unit Training for Corps Airborne/LID. The ammunition requirements for all systems are given in tables 6-59 (LID/Corps Airborne) and 6-60 (Airborne/Assault).

**Table 6-58**  
**Annual Individual Training for Light Engineer/Airborne Units (Active)**

Event	Freq <sup>1</sup>
<b>Demolitions:</b>	
<b>Construct MDI detonating assembly</b>	
Prime explosives with MDI	6
Prime explosives with det cord	6
<b>Mine Warfare Installation/Removal</b>	
M15AT Mine	6
M19AT Mine	6
M21AT Mine	6
U.S. Anti-handling Devices <sup>2</sup>	6
Hornet <sup>3</sup>	6
<b>Munitions</b>	
SLAM <sup>4</sup>	6
APOBS	6

Notes:

<sup>1</sup> Frequency allows for 3 live fire qualification exercises and 3 inert sustainment exercises.

<sup>2</sup> Frequency allows for 4 live anti-handling device exercise on inert metallic mines and 2 inert.

<sup>3</sup> Frequency allows for 6 inert exercises.

<sup>4</sup> Frequency allows for 6 inert exercises. This strategy requires a pre-deployment live-fire exercise at a ratio of 10 Soldiers to 1 SLAM.

**Table 6–59**  
**Annual Ammunition Requirements for Combat Engineer Battalion LID/ Airborne Corps (Active)** <sup>1, 2, 5, 6</sup>

Munitions	DODIC	Bn	Sep Co CBT ENG
Bangalore Torpedo	M028/MP03 <sup>7</sup>	18	6
Booster Demo 10 ft Det Cord M151	MN68 <sup>4</sup>	1433	1160
Booster Demo 30 ft Det Cord M152	MN69 <sup>4</sup>	1443	1160
Cratering Charge (40 lb.)	M039	108	36
Demolitions - TNT (1/4 lb.) <sup>3</sup>	M030		
Demolitions - TNT (1 lb.) <sup>3</sup>	M032		
Demolitions - C4 (1 1/4 lb.) <sup>3</sup>	M023	3119	1022
Detonating Cord (Ft)	M456	18972	6180
Holder M9	ML45	1080	864
Igniter M81	MN08	1530	1224
M15AT Mine	K180	54	18
M19AT Mine	K250	54	18
M21AT Mine	K181	54	18
M88 Volcano <sup>2</sup>	K042	24	8
M152 30ft Booster	MN69	194	130
Non-electric Cap M21	MN88	135	108
Non-electric Cap M23	MN90	135	108
Non-electric Cap M14	MN06	1350	1080
Shaped Charge (15 or 40 lb.)	M420/421	108	36

Notes:

<sup>1</sup> Inert line charge will be reused 3 times before replacement.

<sup>2</sup> M88 canister will be fired from the four corners ONLY. All other positions will be filled with M89 canisters.

<sup>3</sup> If C–4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb package size. This table combines individual and unit demolition quantities.

<sup>4</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for either the Bn/ Sep Co.

<sup>5</sup> Warning: Launch of the line charge by personnel outside of an armored vehicle is prohibited. Under certain circumstances the line charge can prematurely detonate in the air. The charge cannot detonate until the arresting cable is fully extended and the fuze arms. This presents no danger to personnel in a “but-toned up” armored vehicle but could put personnel in danger in open areas.

<sup>6</sup> Inert trainers (MN84) are located at local TASC.

<sup>7</sup> The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

**Table 6–60**  
**Annual Ammunition Requirements for Combat Engineer Bn Airborne/Assault Div (Active)** <sup>1,2,5,6</sup>

Munitions	DODIC	Bn	Sep Co
Bangalore Torpedo	M028/MP03 <sup>7</sup>	27	3
Booster Demo 10 ft Det Cord M151	MN68 <sup>4</sup>	1728	238
Booster Demo 30 ft Det Cord M152	MN69 <sup>4</sup>	1728	238
Cratering Charge (40 lb.)	M039	162	18
Demolitions - TNT (1 lb.) <sup>3</sup>	M032		
Demolitions - TNT (1/4 lb.) <sup>3</sup>	M030		
Demolitions - C4 (1 1/4 lb.) <sup>3</sup>	M023	4626	491
Detonating Cord (FT)	M456	28044	2962
Holder M9	ML45	1296	173
Igniter M81	MN08	1836	245



**Table 6–60**  
**Annual Ammunition Requirements for Combat Engineer Bn Airborne/Assault Div (Active) <sup>1,2,5,6</sup>—Continued**

M15AT Mine	K180	81	9
M16A1AP Mine (Korea only)	K092	81	
M19AT Mine	K250	81	9
M21AT Mine	K181	81	9
M88 Volcano <sup>2</sup>	K042	24	9
M152 30ft Booster	MN69	194	0
Non-electric Cap M21	MN88	162	22
Non-electric Cap M23	MN90	162	22
Non-electric Cap M14	MN06	1620	216
Shaped Charge (15 or 40 lb.)	M420/M421	162	18

Notes:

<sup>1</sup> Inert Line Charge will be reused 3 times before replacement.

<sup>2</sup> M88 canisters will be fired from the four corners ONLY. All other positions will be filled with M89 canisters.

<sup>3</sup> If C–4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb package size. This table combines individual and unit demolition quantities.

<sup>4</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for either the Bn/ CMBT Engr Co.

<sup>5</sup> Warning: Launch of the line charge by personnel outside of an armored vehicle is prohibited. Under certain circumstances the line charge can prematurely detonate in the air. The charge cannot detonate until the arresting cable is fully extended and the fuze arms. This presents no danger to personnel in a “but-toned up” armored vehicle but could put personnel in danger in open areas.

<sup>6</sup> Inert trainers (MN84) are located at local TASC.

<sup>7</sup> The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

## 6–21. NG/NG BCT/USAR

### *a. AT and AP mine training standard.*

(1) Eighty percent of the assigned Soldiers with a Soldier’s Manual requirement must have employed inert mines to Soldier’s Manual standards (tasks: Install/remove the M15 AT mine, M19 AT mine, M21 AT mine and inert US anti-handling devices) every 12 months. (Live anti-handling device can be used on inert metallic mines to achieve the training strategy. (See table 6–58).

(2) All Combat Engineer squads and platoons must have met MTP standards (tasks: Install/recover a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical (ROW) minefield) using inert mines within the past training year. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

### *b. Demolitions training standard.*

(1) Eighty percent of the assigned Soldiers with a Soldier’s Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier’s Manual standards (tasks: Construct an MDI detonating assembly, Prime explosives with MDI, and Prime explosives with detonating cord) every 12 months.

(2) All Combat Engineer squads must have employed inert and live demolitions to MTP standards (tasks: Disable a bridge with explosives, Construct an abatis and Breach obstacles) in accordance with the frequencies in table 6–60 every 12 months.

(3) Shape charge/Cratering charge standard. All Combat Engineer squads must have employed inert and live demolitions for a 3-hole hasty road crater to MTP standards (tasks: Create a crater obstacle with explosives and Disable a LOC/airfield) every 12 months.

(4) Bangalore Torpedo standard. All Combat Engineer platoons must have employed an inert Bangalore Torpedo to MTP standards (task: Breach obstacles (wire obstacle) every 12 months).

(5) MOPMS standard. All Combat Engineer squads must have participated in the installation and recovery of the MOPMS Training Dispenser (M136) to operator’s manual standards (task: Emplace a tactical (scatterable) minefield) every 12 months.

(6) Volcano standard.

(a) Eighty percent of the assigned Soldiers with a Soldier’s Manual requirement must have conducted the DCU–BIT Test to operator’s manual standards every 12 months.

(b) The Assault & Obstacle Platoon/Section must have successfully employed the Volcano with the M88 and the M89 training device to MTP standards (task: Emplace a tactical (scatterable) minefield) every 12 months.

(7) Munitions standard. All Combat Engineer squads must have employed inert Selected Lightweight Attack

Munitions (SLAM) 6 times every 12 months. This strategy requires post mobilization/pre-deployment firing of a live SLAM at a ratio of 10 Soldiers to 1 SLAM.

c. *Training strategy.* Training standards for each system are given below. Recommended training strategies for all systems are given in table 6–61 (Individual Training), table 6–62 (Unit Training). This includes Individual and Unit Training for Corps Airborne/LID. The ammunition resources for all systems are given in table 6–63. (LID/Corps Airborne).

**Table 6–61**  
**Annual Individual Training for Light Engineer Units (NG/NG BCT/USAR) <sup>1,2,3,4</sup>**

Event	Freq
<b>Demolitions</b>	
Construct MDI detonating assembly	
Prime explosives with MDI	3
Prime explosives with Det cord	
<b>Mine Warfare Installation/Removal<sup>2</sup></b>	
M15AT Mine	3
M19AT Mine	3
M21AT Mine	3
U.S. Anti-handling Devices (Inert Only)	3
Hornet <sup>3</sup>	3
APOBS	3
<b>Munitions</b>	
SLAM4	3

Notes:

<sup>1</sup> Frequency allows for 1 live fire qualification exercise and 2 inert sustainment exercises.

<sup>2</sup> Combat Engineer: Frequency allows for 1 inert qualification exercise and 2 inert sustainment exercises.

<sup>3</sup> Frequency allows for 3 inert exercises.

<sup>4</sup> Frequency allows for 3 inert exercises. This strategy requires a post mobilization/pre deployment live-fire exercise at the ratio of 10 Soldiers to 1 SLAM.

**Table 6–62**  
**Annual Unit Training for Light Engineer Units (NG/NG BCT/USAR) <sup>1</sup>**

Tasks	Freq	Munitions/System	Event
		Shaped Charge	
Create a Crater Obstacle With Explosives	1/Live/Qualify	Crater Charge	LFX,CALFEX
		C–4	MTP
Disable Bridge With Explosives	1/Inert/Qualify	C–4	MTP
			FTX
Construct an Abatis	1/Live/Qualify	C–4	LFX, CALFEX
			FTX, MTP
Breach Obstacles (other than Minefield)	1/Live/Qualify	C–4	LFX, CALFEX
	1/Inert/Sustain		FTX, MTP
Breach Obstacle (Wire Obstacle)	1/Live/Qualify	Bangalore	LFX, CALFEX
	2/Inert/Sustain		FTX, MTP
Breach Obstacle (with Explosives)	1/Live/Qualify		
	1/Inert/Sustain		
Install/Recover a Hasty Protective Minefield	1/Inert/Qualify	AT, AP Mines	MTP

**Table 6–62**  
**Annual Unit Training for Light Engineer Units (NG/NG BCT/USAR) <sup>1</sup>—Continued**

			FTX
	1/Inert/Qualify	Shaped Charge	MTP
Disable LOC/Airfield	1/Inert/Sustain	C–4	FTX
		Crater Charge	
Emplace a Tactical Minefield	3/Inert	Hornet	FTX,MTP
Emplace a Tactical Minefield (Scatterable)	1/Inert/Qualify	MOPMS (M136)	FTX
	1/Inert/Qualify		MTP
Emplace a Tactical Minefield (ROW)	2/Inert/Sustain	AT, Mine	FTX
Emplace a Tactical Minefield (Scatterable)	1/Live/Qualify		LFX, CALFEX
Emplace Munitions	3/Inert	SLAM	MTP FTX
Create a Footpath Through an Obstacle	2/Inert/Sustain	APOBS	LFX, CALFEX
(Antipersonnel mines and or wire)			MTP FTX

Notes:

<sup>1</sup> M79 training mine will be used for these tasks.

**Table 6–63**  
**Annual Ammunition Requirements for LID Engr (NG/NG BCT/USAR) <sup>1, 3, 5</sup>**

Munitions	DODIC	Bn	Sep co
Bangalore Torpedo	M028/MP03 <sup>6</sup>	9	3
Booster Demo 10 ft Det Cord M151	MN68 <sup>4</sup>	416	178
Booster Demo 30 ft Det Cord M152	MN69 <sup>4</sup>	416	178
Cratering Charge (40 lb.)	M039	54	18
Demolitions - TNT (1/4 lb.) <sup>2</sup>	M030		
Demolitions - TNT (1 lb.) <sup>2</sup>	M032		
Demolitions - C4 (1 1/4 lb.) <sup>2</sup>	M023	1868	617
Detonating Cord (FT)	M456	8190	3510
Holder M9	ML45	329	141
Igniter M81	MN08	441	189
M15AT Mine	K180	0	0
M19AT Mine	K250	0	0
M21AT Mine	K181	0	0
M88 Volcano <sup>1</sup>	K042	24	8
M152 30ft Booster	MN69	46	120
Non-electric Cap M21	MN88	63	27
Non-electric Cap M23	MN90	63	27
Non-electric Cap M14	MN06	399	171
Shaped Charge (15 or 40 lb.)	M420/421	54	18

Notes:

<sup>1</sup> M88 canisters will be fired from all four corners ONLY. All other positions will be filled with M89 canisters.

<sup>2</sup> Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb. package size. This table combines individual and unit demolition quantities.

<sup>3</sup> This table provides ammunition requirements for units with 18 squads.

<sup>4</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for either the Bn/Sep Co.

<sup>5</sup> Inert trainers (MN84) are located at local TASC.

<sup>6</sup> The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

## 6-22. Combat Heavy Engineers (Active Component)

### *a. AT and AP mine training standard.*

(1) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have employed live and inert mines to Soldier's Manual standards (tasks: Install/remove M16A1 AP mine (Korea only), M15 AT mine, M19 AT mine, M21 AT mine, inert US anti-handling devices) within the past 12 months. Each line squad in the vertical construction platoon is allocated 1 each live M15AT, M16A1AP (Korea only), M19AT and M21AT mine in accordance with table 6-63. Each line squad member in the vertical construction platoon must arm and disarm each type live mine allocated to meet the individual training standard. When training with a live M16A1 AP, trip wires will not be used. The M21AT mine will not be employed in the tilt rod mode. Only inert anti-handling devices will be used in training on inert mines (PTM Kit). Live anti-handling device can be used on inert metallic mines to achieve the training strategy. (See table 6-61).

(2) All squads and platoons with an MTP requirement must have met MTP standards (tasks: Install/recover or transfer a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical (ROW) minefield) using inert mines within the past 12 months. M16AP Mine arming/disarming (use) is restricted to those units assigned to Eighth U.S. Army, Korea. No units at other locations are authorized to train with AP mines. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

### *b. Demolition training standard.*

(1) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI initiating/detonating assembly, Prime explosives with MDI, and Prime explosives with detonating cord) within the past 12 months.

(2) All squads with an MTP requirement must have employed inert and live demolitions to MTP standards (tasks: Disable bridge with explosives, Construct an abatis and Breach obstacle with explosives within the past 12 months.

(3) Shape Charge/Cratering Charge standard. All Combat Engineer Squads with an MTP requirement must have employed inert and live demolitions to create a 3 hole hasty road crater to MTP standards (tasks: Create a crater obstacle with explosives and Disable a LOC/airfield) within the past 12 months.

(4) Bangalore Torpedo standard. All Combat Engineer Platoons with an MTP requirement must have employed an inert Bangalore Torpedo to MTP standards (task: Breach obstacles (Wire obstacle) within the past 12 months.

*c. Training strategy.* Training Standards for each system are given below. Recommended training strategies for all systems are given in table 6-64 (Individual Training) and table 6-65 (Unit Training). The ammunition requirements are given in table 6-66.

**Table 6-64**  
**Annual Individual Training for Combat Heavy Engineer (Active)**

<b>Demolitions</b>	<b>Freq<sup>1</sup></b>
<b>Construct MDI detonating assembly</b>	
Prime explosives with MDI	4
Prime explosives with Det cord	4
<b>Mine Warfare Installation/Removal</b>	
M16AP Mine (Korea only)	4
M15AT Mine	4
M19AT Mine	4
M21AT Mine	4
U.S. Anti-handling Devices (Inert Only)	4

Notes:

<sup>1</sup> Frequency allows for 1 live fire qualification exercise and 3 inert sustainment exercise.

**Table 6–65**  
**Annual Unit Training for Combat Heavy Engineer**

Tasks	Freq	Munitions/System	Event
Create a Crater Obstacle With Explosives	1/Live/Qualify	Shaped Charge	LFX CALFEX
	1/Inert/Sustain	Crater Charge/C4	FTX
Disable Bridge With Explosives	1/Inert/Qualify	C–4	FTX, MTP
Construct an Abatis	1/Inert/Qualify	C–4	FTX, MTP
Breach Obstacles (other than Minefield)	1/Live/Qualify	C–4	LFX, CALFEX
	1/Inert/Sustain	C–4	FTX, MTP
Breach Obstacles (Wire Obstacle)	1/Inert/Qualify	Bangalore	FTX, MTP
	1/Inert/Sustain	Bangalore	
Breach Obstacles using Explosives	1/Live/Qualify	C–4	
	1/Inert/Sustain	C–4	
Install/Recover/Transfer a Hasty Protective Minefield <sup>1</sup>	1/Inert/Qualify	AT, AP Mines	FTX, MTP
Disable LOC/Airfield with Explosives <sup>1</sup>	1/Inert/Sustain	AT, AP Mines	FTX, MTP
	1/Inert/Sustain	Shaped Charge, C–4	FTX, MTP
		Crater Charge	
Emplace a Tactical Minefield (Hornet) <sup>1</sup>	1/Inert/Qualify	AT, AP Mines	FTX, MTP
	1/Inert/Sustain	AT, AP Mines	FTX, MTP
Emplace a Minefield (ROW)	1/Inert/Qualify	AT, AP Mines	FTX, MTP
	1/Inert/Sustain	AT, AP Mines	FTX, MTP

Notes:

<sup>1</sup> AP Mines are restricted to those units assigned to Eighth, U.S. Army, Korea.

**Table 6–66**  
**Annual Ammunition Requirements for Combat Heavy Engineer (Active) <sup>2</sup>**

Munitions	DODIC	Bn	Sep Co
Bangalore Torpedo	M028/MP03 <sup>3</sup>	6	2
Booster Demo 10 ft Det Cord M151	MN68 <sup>2</sup>	190	172
Booster Demo 30 ft Det Cord M152	MN69 <sup>2</sup>	190	172
Cratering Charge (40 lb.)	M039	54	18
Demolitions - C4 (1 1/4 lb.) <sup>1</sup>	M023	1106	363
Detonating Cord (Ft)	M456	5400	1622
Holder M9	ML45	144	128
Igniter M81	MN08	400	300
M15AT Mine	K180	18	6
M16AP Mine (Korea only)	K092	18	6
M19AT Mine	K250	18	6
M21AT Mine	K181	18	6
Shaped Charge (15 or 40 lb.)	M420/421	54	18
M152 30ft Booster	MN69	22	19
Non-electric Cap M21	MN88	54	18
Non-electric Cap M23	MN90	54	18

**Table 6-66**  
**Annual Ammunition Requirements for Combat Heavy Engineer (Active) <sup>2</sup>—Continued**

Non-electric Cap M14	MN06	200	156
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Notes:

<sup>1</sup> If C-4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C-4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb. package size. This table combines individual and unit demolition quantities.

<sup>2</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for either the Bn/Sep Co.

<sup>3</sup> The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

## 6-23. NG/NG BCT/USAR

a. AT and AP mine training standard.

(1) Eighty percent of the assigned Soldiers with a Soldier's Manual requirement must have employed inert mines to Soldier's Manual standards (tasks: Install/remove M15 AT mine, M19 AT mine, M21 AT mine, US anti-handling devices) every 12 months.

(2) All squads and platoons with an MTP requirement must have met MTP standards (tasks: Install/recover or transfer a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a tactical (ROW) minefield) using inert mines within the past training year. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed on 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

b. Demolitions training standards.

(1) Eighty percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed inert demolition firing systems and inert primed explosives to Soldier's Manual standards (tasks: Construct an MDI initiating/detonating assembly, Prime explosives with MDI, and Prime explosives with detonating cord) every 12 months.

(2) All squads with an MTP requirement must employ inert demolitions to MTP standards (tasks: Disable bridge with explosives, Construct an abatis and Breach obstacles) every 12 months.

(3) Shape charge/Cratering charge standard. All squads with an MTP requirement must have emplaced inert demolitions to create a 3-hole hasty road crater to MTP standards (tasks: Create a crater obstacle with explosives and Disable a LOC/airfield) every 12 months.

(4) Bangalore Torpedo standard. All Platoons with an MTP requirement must have employed an inert Bangalore Torpedo to MTP standards (task: Breach obstacles (wire obstacle) every 12 months.

c. *Training strategy.* General. Training standards for each system are given below. Recommended training strategies for all systems are given in table 6-67, 6-68 and 6-69.

**Table 6-67**  
**Annual Individual Training for Combat Heavy Engineer (NG/NG BCT/USAR)**

Event	Freq <sup>1</sup>
<b>Demolitions</b>	
Construct MDI detonating assembly	
Prime explosives with MDI	3
Prime explosives with det cord	3
<b>Mine Warfare Installation/Removal</b>	
M15AT Mine	3
M19AT Mine	3
M21AT Mine	3
U.S. Anti-handling Devices (Inert Only)	3

Notes:

<sup>1</sup> Frequency allows for 1 inert qualification exercise and 2 inert sustainment exercises.

**Table 6–68**  
**Training Year Events for Combat Heavy Engineer (NG/NG BCT/USAR)**

Tasks	Freq	Munitions/System	Event
Create a Crater Obstacle With Explosives	1/Live/Sustain/Biennial	Shaped Charge	FTX
	1/Inert/Qualify	Crater Charge	
Disable Bridge With Explosives	1/Inert/Qualify	C–4	FTX, MTP
Construct an Abatis	1/Inert/Qualify	C–4	FTX, MTP
Breach Obstacles (other than Minefields)	1/Inert/Qualify	C–4	FTX, MTP
	1/Live/Sustain/Biennial		
Breach Obstacles (Wire Obstacle)	1/Inert/Qualify	Bangalore	FTX, MTP
	1/Live/Qualify		
Breach Obstacles using Explosives	1/Inert/Sustain	C–4	
Install/Recover/Transfer a Hasty Protective Minefield	1/Inert/Qualify	AT, AP Mines	FTX, MTP
	1/Inert/Sustain		
Conduct Route Mine sweep Operations	1/Inert/Qualify	AT, AP Mines	FTX, MTP
Disable LOC/Airfield With Explosives	1/Inert/Sustain	Crater Charge	FTX, MTP
Emplace a Tactical Minefield (Hornet)	1/Inert/Qualify	AT, Mines	FTX, MTP
Emplace a Minefield (ROW)	1/Inert/Sustain	AT, Mines	FTX, MTP
Breach Minefield with Explosives	1/Live/Qualify		

**Table 6–69**  
**Annual Ammunition Requirements for Combat Heavy Engineer (NG/NG BCT/USAR)**

Munitions	DODIC	Bn	Sep Co
Bangalore Torpedo	M028/MP03 <sup>1</sup>	3	1
Booster Demo 10 ft Det Cord M151	MN68	840	230
Booster Demo 30 ft Det Cord M152	MN69	840	230
Cratering Charge (40 lb.)	M039	12	3
Demolitions - C4 (1 1/4 lb.) 1	M023	111	36
Detonating Cord (Ft)	M456	623	203
Holder M9	ML45	504	117
Igniter M81	MN08	900	80
M15AT Mine	K180	0	0
M19AT Mine	K250	0	0
M21AT Mine	K181	0	0
M152 30ft Booster	MN69	93	26
Non-electric Cap M21	MN88	72	32
Non-electric Cap M23	MN90	36	16
Non-electric Cap M14	MN06	468	48
Shaped Charge (15 or 40 lb.)	M420/421	12	3

Notes:

<sup>1</sup> 1. The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

## 6-24. Diving Detachments(Active Component)

### a. Demolition training standard.

(1) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI initiating/detonating assembly, Prime explosives with MDI and Prime explosives with detonating cord) within the past 6 months.

(2) Each diving detachment with an MTP requirement must have constructed demolition firing systems to MTP standards (task: Clear underwater obstacles using demolitions) within the past 6 months.

b. *Training strategy.* Training Standards for each system are given below. Recommended training strategies are given in tables 6-70 (Individual Training) and table 6-71 (Unit Training). The ammunition requirements are given in table 6-72.

**Table 6-70**  
**Annual Individual Training for Diving Detachments (Active)**

Event	Freq
<b>Demolitions</b>	
Prime explosives with MDI	4
Prime explosives with det cord	

Notes:

<sup>1</sup> Frequency allows for 2 live fire qualification exercises and 2 inert sustainment exercises.

**Table 6-71**  
**Annual Unit Training for Diving Detachments**

Tasks	Freq	Munitions/System	Event
Clear Underwater Obstacles Using Demolitions	2/Live/Qualify	C-4	LFX
	2/Insert/Sustain	C-4	FTX,MTP

**Table 6-72**  
**Annual Ammunition Requirements for Diving Teams (Active)**

Munitions	DODIC	Detachment
Booster Demo 10 ft Det Cord M151	MN68 <sup>1</sup>	122
Booster Demo 30 ft Det Cord M152	MN69 <sup>1</sup>	122
Demolitions- C4 (1 1/4 lb.)	M023	34
Detonating Cord (FT)	M456	3400
Holder M9	ML45	181
Igniter M81	MN08	136
M152 30ft Booster	MN69	14
Non-electric Cap M21	MN88	136
Non-electric Cap M23	MN90	136
Non-electric Cap M14	MN06	136

Notes:

<sup>1</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for a Diving Detachment.



## 6-25. NG/NG BCT/USAR Demolitions Training Standards

a. Eighty percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI initiating/detonating assembly, Prime explosives with MDI, and Prime explosives with detonating cord) every 12 months. Each diving detachment with an MTP requirement must have constructed demolition firing systems to MTP standards (task: Clear underwater obstacles using demolitions) every 12 months.

b. *Training strategy.* Training Standards for each system are given below. Recommended training strategies are given in tables 6-73 (Individual Training) and table 6-74 (Unit Training). The ammunition requirements are given in table 6-75.

**Table 6-73**  
**Annual Individual Training for Diving Teams (NG/NG BCT/USAR)**

Event	Freq <sup>1</sup>
<b>Demolitions</b>	
Prime explosives with MDI	3
Prime explosives with Detonating cord	3

Notes:

<sup>1</sup> Frequency allows for 1 live fire qualification exercises and 2 inert sustainment exercises.

**Table 6-74**  
**Training Year Events for Diving Teams (NG/NG BCT/Reserves)**

Tasks	Freq	Munitions/System	Event
Clear Underwater Obstacles Using Demolitions	1/Live/Qualify	C-4	LFX
	2/Inert/Sustain	C-4	FTX, MTP

**Table 6-75**  
**Training Year Ammunition Requirements for Diving Teams (NG/NG BCT/Reserves) <sup>1</sup>**

Munitions	DODIC	Detachment
Booster Demo 10 ft Det Cord M151	MN68	31
Booster Demo 30 ft Det Cord M152	MN69	31
Demolitions - C4 (1 1/4 lb)	M023	17
Detonating Cord (FT)	M456	1700
Holder M9	ML45	45
Igniter M81	MN08	34
M152 30ft Booster	MN69	34
Non-electric Cap M21	MN88	34
Non-electric Cap M23	MN90	34
Non-electric Cap M14	MN06	34

Notes:

<sup>1</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for a Diving Detachment.

## 6-26. Engineer Stryker Brigade Combat Team

This section contains TADSS information, weapon qualification, and collective training and resource requirements for SBCT units. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000.

## 6-27. SBCT TADSS

This section contains SBCT specific TADSS. The SBCT also utilizes most TADSS listed in appendix B.

a. *MILES MCTC Platform Integration*: Provides new software code for Brigade Combat Team organization, platforms, weapons, and conducts integration and testing of the code into each of the Maneuver Combat Training Centers Instrumentation Systems (IS). Code provides icons and algorithms for each new organization platform and displays them on the Training Analysis and Feedback (TAF) analysts' computer screens. Additionally, a new baseline database is needed for the new platforms and must be integrated into the IS. The IS is different at each MCTC, requiring specific code for each center. Integration testing is critical to ensure the new codes work properly in each system and does not adversely affect the functionality of the system baseline.

b. *MILES Vehicle Interface Package*: VIP provides the communications interface between vehicles and the instrumentation systems at CTC. Enables the Brigade to conduct validation exercise at CTC in December 01 and future Live Instrumented Training. The VIP appends to shooter and target vehicles and allows for simulated direct and indirect fire engagements. In conjunction with the MILES XXI IAV kit, the CTC instrumentation system allows for real-time tracking, status and control capability. Instruments precision and non-precision tactical engagement simulation systems. This provides Brigade commanders and training exercise managers exercise oversight and capability for comprehensive After Action Review (AAR) production.

c. *Remote Weapon Station Trainer (RWST)*. The RWS Trainer is a training device that trains Vehicle Commanders and Gunners of Stryker variants equipped with the RWS both initial and sustainment gunnery skills. This is a desktop training device that has the same flat screen panel and joystick that is resident in the Stryker RWS.

d. *MK 19 TESS*. MK 19 Tactical Engagement Simulation System (TESS) is an interim MILES solution for the MK 19 grenade machine gun (GMG). It is a direct line of sight (LOS) solution that can operate either mounted or dismounted. It was specifically developed to support the SBCTs at IOT&E because of the large number of vehicles equipped with the MK 19 GMG. It was not developed to meet the MK 19 requirements for the Army. This training device will be replaced when One TESS is fielded to the Army.

e. *Conduct-of-Fire Trainer (COFT)*. The COFT (for MGS) and the Advanced Gunnery Training System (AGTS) (for MGS) enable the training of vehicle commander and gunner teams on simulated target engagements in the virtual environment. The simulator provides training on engagements equivalent to those found in the FM 3-20.13 series gunnery tables as well as more advanced training scenarios. COFT/AGTS Minimum Proficiency Level Goals for Active Component are listed in (1) through (4) below and those for Reserve Component (5).

f. *Tank Weapons Gunnery Simulation System (TWGSS)*. TWGSS is a vehicle-appended precision gunnery training system that simulates main gun and coax machinegun firing for the MGS Platoon. It interfaces with the vehicle fire control system and permits precision and degraded-mode gunnery training. A simulated tracer and impact burst is superimposed in the sights as the actual round would fly and impact. TWGSS collects actual Gunner / TC gunnery events to be utilized during the individual AAR. TWGSS is interoperable with PGS, MILES, TSV, LTIDS and ITIGS. TWGSS also provides target-tracking training, 1/2 and 1/10 scale gunnery training and should be used for force on force training to reinforce gunnery skills learned during gunnery training.

g. *Thru-Sight Video (TSV)*. TSV is a vehicle-appended system that records crew audio and the gunner's sight picture on MGS and RECCE vehicles. The system consists of an on-vehicle video and audio recording package and an off-vehicle AAR substation. The system makes a video recording of the gunner's sight picture. It shows the date and time and marks the video at the instant the trigger is activated.

h. *Caliber .50 Tank Inbore Sub-caliber Device*. The Caliber .50 Tank Inbore Sub-caliber Device is used MGS systems to engage full-scale and half-scale targets on a full-scale range. This device consists of a bolt-action, single-shot, rifle-type breech mechanism, which attaches to a modified M2 machine gun barrel that mounts inside a 105mm/120mm-gun tube. The ammunition for the inbore device is the SLAP-T round (DODIC: AA38) which may be found in platoon level tables VI, VII, IX and XI. Primarily, this device is to be used by units without TWGSS or where remedial training is better facilitated using this device.

i. *Maintenance Trainer*. The maintenance trainer sets allow personnel to fully experience the system to be maintained without ever leaving the classroom. Allows Soldiers move at his own pace along data paths to understand and comprehend system relationships and data flows, and learn at a faster rate, to permit training more students at fewer sites and with fewer instructional personnel, resulting in better training at a lower cost. The infantry carrier variants will be supported by a Maintenance Trainer that is designed to train entry level skills for vehicle mechanics to include: system operation, use of special test equipment, fault isolation, fault diagnosis, troubleshooting, adjustments, removal and replacement, and repair tasks.

j. *CCTT Reconfigurable Desktop Simulation (VLET)*. The Virtual Leader Effects Trainer provides support to the interim force by providing dismounted maneuver leader focus as an extension of an ongoing initiative to replace CCTT dismounted leader trainer. It immerses dismounted leaders from Battalion commander to fire team leaders in a realistic training environment. It provides realistic virtual environment in which leaders control virtual Soldiers through voice commands and hand and arm signals. It includes directional sound cues and realistic leader weapon replication. Leaders are able to move and change position (standing, kneeling, prone) in full-spectrum of operational environments.

k. *Vehicle Driver Trainer*. The ICV Driver Trainer provides initial and transition driver training for ICV systems

crewman. Device consists of a driver training station, instructor/operator station, visual system, aural/audio system, computer system, and a fully integrated motion system. A real time color computer image generation sub-system provides visual scenes to the driver through the periscope or on a screen for out-of-hatch training. Instructor station is capable of selecting a visual scene, viewing it, monitoring each trainee's performance, and introducing malfunctions and emergency control situations.

## 6-28. Additional SBCT Specific Individual/Crew Served Weapon Ammunition

a. *M16/M249 AR Reflexive Fire Qualification.* (See table 6-76) Applies only to Infantry Soldiers assigned to an Engineer Combat Mobility Platoons. Ninety percent of Soldiers assigned will qualify within the past six months. Reflexive fire qualification is conducted on table 7-5 in Chapter 5 of FM 3-22.9. Reflexive fire qualification is required prior to LFX training in a shoot house.

**Table 6-76**  
**M16/M4 table**

Event	DODIC	Rounds	Freq	
			CBT EN	All Others
Advanced Rifle Marksmanship	AA33	100	2	0
<b>Reflexive Fire Qualification</b>				
table 7-3	AA33	80	2	0
table 7-4	AA33	80	2	0
table 7-5	AA33	180	2	0
Total for ARM	AA33	880		0
<b>M249 AR table</b>				
<b>Reflexive Fire Qualification</b>				
table 7-3	A062	180	2	0
table 7-4	A062	120	2	0
table 7-5	A062	135	2	0
<b>Total for Qualification</b>		<b>870</b>		<b>0</b>

b. *MK-19 Remote Weapon Station (RWS).* (See table 6-77) Ninety percent of the vehicle commanders equipped with the MK-19 RWS will qualify on the Day and Night Qualification in accordance with the tables and standards listed in Chapter 4 of ST 23-AIMSS within the past six months. RWS will utilize table II (B) for day qualification and table IV (B) for night qualification in Chapter 4 of ST 23-AIMSS. Night qualification targets are limited to 800 meters and closer.

**Table 6-77**  
**MK-19 Remote Weapon Station Qualification**

Day Qualification	DODIC	Rounds	Freq
table I Day Practice	B584	62	2
table II Day Qualification	B584	62	2
<b>Night Qualification</b>			
table III Night Practice	B584	44	2
table IV Night Qualification	B584	44	2
<b>Total Rounds for RWS Qualification</b>			
<b>Day Qualification</b>			
table I & II	B584	248	
<b>Night Qualification</b>			
table II & IV	B584	176	

c. *M2 Remote Weapon Station (RWS)*. (See table 6–78) Ninety percent of the vehicle commanders equipped with the M2 RWS will qualify on the Day (table II) and Night (table IV) Qualification tables in accordance with the standards listed in Chapter 4 of TC 23–AIMSS within the past six months. Night qualification targets are limited to 800 meters and closer.

**Table 6–78**

**M2 Remote Weapon Station Qualification**

Day Qualification	DODIC	Rounds	Freq
table I Day Zero/Practice	A557	140	2
table II Day Zero/Qualification	A557	140	2
Night Qualification			
table III Night Zero/Practice	A557	140	2
table IV Night Zero/Qualification	A557	140	2
Total Rounds for RWS Qualification			
tables I–IV	A557	1120	

## 6–29. AC SBCT Engineer Collective Training

### Collective Training Requirements

a. *Combat Engineer Platoons*. The Engineer Combat Mobility Platoon and Mobility Support Platoon will participate in a squad sized or higher LFX to standard (ARTEP- MTP) quarterly; participate in a Platoon/Company LFX to standard (ARTEP- MTP) every six months and participate in an external evaluation to standard (ARTEP - MTP) every six months.

b. *Engineer Combat Mobility Platoon and Mobility Support Platoon (all others)*. Soldiers not previously addressed will participate in a Section/Platoon/Company LFX to standard every 12 months; participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

## 6–30. SBCT Engineer Battalion Collective Training Resourcing tables

### a. Collective training by component:

(1) Active Duty: Soldiers will participate in a Squad/Section/Platoon/Company LFX to standard every 12 months and participate in a Squad/Section/Platoon/Company FTX every six months and participate in an external evaluation (EXEVAL) to standard every 12 months. Consult appropriate ARTEP/MTP manuals for standards. LFX should be tailored to your units METL.

(2) National Guard Soldiers will participate in a Squad/Section/Platoon/Company STX/FTX every 12 months; participate in an external evaluation (EXEVAL) to standard once every 24 months. Consult appropriate ARTEP/MTP manuals for standards. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(3) Combat Engineer Platoon Soldiers will: participate in a squad sized or higher LFX to standard (ARTEP MTP) every three months; participate in a Platoon/Company LFX to standard (ARTEP MTP) every 12 months and participate in an external evaluation to standard (ARTEP MTP) every 12 months.

(4) All Others. Soldiers not previously addressed will: participate in a Platoon/Company LFX to standard every 12 months; participate in an external evaluation to standard every 12 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

(5) National Guard Combat Engineer Platoon Soldiers will: participate in a squad sized or higher LFX to standard (ARTEP MTP) every six months; participate in a Platoon/Company LFX to standard (ARTEP MTP) every 12 months; participate in an external evaluation to standard (ARTEP MTP) every 24 months.

(6) National Guard All Others. Soldiers not previously addressed will: participate in a Platoon/Company LFX to standard every 12 months; participate in an external evaluation to standard every 24 months. Consult the appropriate CS/CSS ARTEP MTP for standards.

b. *M16/M4*. table 6–79 lists Advanced Rifle Marksmanship (ARM) and collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and Mobility Support Section. The “All Others” section applies to soldiers assigned to the Company Headquarters.

**Table 6–79**  
**M16/M4 Collective Training**

Event	Type	DODIC	Rnds	CBT EN	Freq		
					All Others	CBT EN NG	All Others NG
Fire and Move LFX	Ball/Tracer	A059/A063	16/4	4	0	2	0
SQD/PLT LFX	Ball/Tracer	A059/A063	130/20	4	0	0	0
PLT/Co LFX <sup>1</sup>	Ball/Tracer	A059/A063	130/20	2	1	2	1
CALFEX	Ball/Tracer	A059/A063	120/10	1	0	0	0
SQD/PLT/Co FTX/STX	Blank	A080	120/40	4	1	2	1
Bn FTX	Blank	A080	120/40	2	1	0	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A080	120/40	2	1	0.5	0.5
<b>Total Rounds For ARM/Collective Training</b>							
Ball		AA63		200	0	100	0
Ball		A059		964	130	292	130
Tracer		A063		146	20	48	20
Blank		A080		960	120	240/360	40

Notes:

<sup>1</sup> Indicates Standard.

c. *M249 AR*. table 6–80 lists collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–80**  
**M249 AR Collective Training**

Event	Type	DODIC	Rnds	CBT EN	Freq		
					All Others	CBT EN NG	All Others NG
Fire and Move LFX	Mix	A064	70	4	0	2	0
SQD/PLT LFX	Mix	A064	300	4	0	0	0
PLT/Co LFX <sup>1</sup>	Mix	A064	300	2	1	2	1
CALFEX	Mix	A064	200	1	0	0	0
SQD/PLT/Co FTX/STX	Blank	A075	200	4	1	2	1
Bn FTX	Blank	A075	300	2	1	0	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A075	300	2	1	0.5	0.5
<b>Total Rounds For Collective Training</b>							
Mix		A064		2280	300	740	300
Blank		A075		2000	800	550	350

Notes:

<sup>1</sup> Indicates Standard.

d. *M249 LMG*. table 6–81 lists collective training resourcing for All Other Soldiers.

**Table 6–81**  
**M249 LMG Collective Training**

Event	Type	DODIC	Rounds	Freq	
				All Others	All Others NG
Fire and Move LFX	Mix	A064	70	0	0
SQD/PLT LFX	Mix	A064	300	0	0
PLT/Co LFX <sup>1</sup>	Mix	A064	300	1	1
CALFEX	Mix	A064	200	0	0
SQD/PLT/Co FTX/STX	Blank	A075	200	1	1
Bn FTX	Blank	A075	300	1	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A075	300	0.5	0.5
<b>Total Rounds For Collective Training</b>					
Mix		A064		300	300
Blank		A075		650	350

Notes:

<sup>1</sup> Indicates Standard.

*e. M240B MG.* table 6–82 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–82**  
**M240B Collective Training**

Event	Type	DODIC	Rnds	CBT EN	Freq		
					All Others	CBT EN NG	All Others NG
SQD/PLT LFX	Mix	A131	300	4	0	0	0
PLT/Co LFX <sup>1</sup>	Mix	A131	300	2	1	2	1
CALFEX	Mix	A131	200	1	0	0	0
SQD/PLT/Co FTX/STX	Blank	A111	400	4	1	2	1
Bn FTX	Blank	A111	400	2	1	0	0
EXEVAL (ARTEP) <sup>1</sup>	Blank	A111	400	2	1	0.5	0.5
<b>Total Rounds For Collective Training</b>							
Mix		A131		2000	300	600	300
Blank		A111		3200	1200	1000	600

Notes:

<sup>1</sup> Indicates Standard.

*f. M203 GL.* table 6–83 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–83**  
**M203 Collective Training**

Event	Freq		
	DODIC		CBT ENG NG /All Others
	B519	B535	
SQD/PLT LFX	18	5	4
PLT/Co LFX <sup>1</sup>	18	5	2
CALFEX	12	0	1
SQD/PLT LFX	4	0	0
<b>Total For Collective Training</b>			
CBT EN/ All others	120	30	
All Others CBT NG	4		

Notes:

<sup>1</sup> Indicates Standard.

*g. M2 .50 Cal MG.* table 6–84 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters

**Table 6–84**  
**M2 .50 Cal Collective Training**

Event	Type	DODIC	Rnds	Freq			
				Cbt EN	All Others	Cbt EN NG	All Others NG
SQD/PLT/Co LFX	Mix	A557	100	4	0	0	0
PLT/Co LFX <sup>1</sup>	Mix	A557	100	2	1	2	1
CALFEX	Mix	A557	100	1	0	0	0
SQD/PLT/Co FTX/STX	Blank	A598	100	4	1	2	1
Bn FTX	Blank	A598	100	2	1	0	0
EXEVAL <sup>1</sup>	Blank	A598	100	2	1	0.5	0.5
<b>Total Rounds Collective Training</b>							
	Mix	A557		700	100	200	100
	Blank	A598		800	300	250	150

Notes:

<sup>1</sup> Indicates Standard.

*h. MK–19 GMG.* table 6–85 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–85**  
**MK–19 Collective Training**

Event	DODIC		Freq		Freq	
	B584	CBT EN	CBT EN NG	B584	All Others	All Others NG
SQD/PLT/Co LFX	32	4	0	30	0	0
PLT/Co LFX <sup>1</sup>	32	2	2	30	1	1
CALFEX	32	1	0	30	0	0
<b>Total For LFX</b>		<b>224</b>	<b>64</b>		<b>30</b>	<b>30</b>

Notes:

<sup>1</sup> Indicates Standard.

*i. Claymore Mine.* table 6–86 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–86**  
**Claymore Mine Collective Training**

Event	Type	Rnds	Freq			
			CBT EN	All Others	CBT EN NG	All Others NG
SQD/PLT/Co FTX/STX	Inert	N/A	4	1	2	1
Bn FTX	Inert	N/A	2	1	0	0
EXEVAL <sup>1</sup>	Inert	N/A	1	1	0.5	0.5
LFX per CBT EN SQD <sup>1</sup>	M18A1/A2	1	4	0	2	0
LFX Per All Other PLTs <sup>1</sup>	M18A1/A2	1	0	1	0	1
<b>Total for LFX</b>						
Claymore Mines Per SQD	K143/K145 <sup>2</sup>		4		2	
Claymore Mines Per PLT	K143/K145 <sup>2</sup>			1		1

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> K143 is the primary DODIC with accessories. K145 does not come with accessories: M57 firing device, M40 test set, M4 blasting cap, and M7 bandoleer.

*j. Hand Grenade.* table 6–87 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–87**  
**Hand Grenade Collective Training**

Event	DODIC	Rnds Per SQD	CBT EN	Freq		
				All Others	NG	NG /All Others
SQD/PLT LFX	G878	6	4	0	0	0
PLT/Co LFX <sup>1</sup>	G878	6	2	1	2	1
<b>Total For Collective Training</b>	<b>G878</b>		<b>36</b>	<b>6</b>	<b>12</b>	<b>6</b>

Notes:

<sup>1</sup> Indicates Standard.



k. *M136 (AT-4)*. table 6–88 shows collective training resourcing for Soldiers assigned to the SBCT Engineers Combat Mobility Platoon and /Mobility Support Section. The “All Others” section applies to Soldiers assigned to the Company Headquarters.

**Table 6–88**  
**AT–4 Collective Training**

Event	DODIC	Qty	CBT EN	Freq		
				All Others	NG	All Others NG
SQD/PLT/Co FTX	L367	6	2	2	2	2
EXEVAL (ARTEP) <sup>1,2</sup>	L367	6	2	1	0.5	0.5
Live Rocket	C995	1	1	0	1	0
<b>Total per AT–4 Gunner</b>						
ATWESS	L367		24	18	9	9
M136 per squad	C995		1	0	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Only 3 Soldiers per Engineer squad and 10 percent of E–5s and below for "All Others" are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for Soldiers qualified on the AT–4.

l. *SBCT Engineer Pyrotechnics*. table 6–89 lists resourcing for SBCT.

**Table 6–89**  
**SBCT EN Pyrotechnics Roll-Up**

Nomenclature	DODIC	Qty
HG Smk GRN	G940	16
HG Smk YEL	G945	48
HG Smk RED	G950	36
HG Smk VIOL	G955	28
HG Smk CS	G963	28
HG Smk HC	G982	48
Smk Pot Flt, M4A2	K511	20
Sig Illum	L305	8
Sig Illum	L306	28
Sig Illum	L307	20
Sig Illum	L311	8
Sig Illum	L312	20
Sig Illum	L314	20
Flare Surface Trip	L495	28
Sim Proj Grnd Brst	L594	104
Sim Proj Air Brst <sup>1</sup>	L595	2
Sim Booby trap Flash	L598	40
Sim Booby trap Illum	L599	28
Sim Booby trap Whis	L600	28
Sim Hand grenade	L601	56

Notes:

<sup>1</sup> Denotes one kit of 20 each simulators.

*m. AT and AP mines standards. (See table 6–90,6–91)*

(1) Ninety percent (Active Duty) of the assigned Soldiers with a Soldier's Manual requirement must have employed mines to Soldier's Manual standards (tasks: Install/remove M15 AT mine, M19 AT mine, M21 AT mine and US anti-handling devices on AT mines) within the past 4 months for AC units. Note: Each AC Engineer Squad is allocated 1 each live M15AT, M19AT and M21AT mine in accordance with table 6–89 and 6–90. Each AC Combat Engineer must arm and disarm each type live mine allocated to meet the individual training requirement. The M21AT mine will not be employed in the tilt rod mode. Only inert anti-handling devices will be used in training on inert mines (PTM Kit). (Live anti-handling device can be used on inert metallic mines to achieve the training strategy).

(2) All Combat Engineer squads must have met MTP standards (tasks: Install/recover a hasty protective minefield, Emplace a tactical (using the inert Hornet) minefield and Emplace a standardize minefield within the past 12 months. A Presidential Decision Directive (PDD 48) on Anti-personnel Landmine Policy was signed 26 June 1996. This policy restricts the use of conventional antipersonnel mines. Mines or mine systems containing antipersonnel mines with self-destruct capabilities are authorized for training.

*n. Demolitions standards.*

(1) Ninety percent (Active Duty) of the assigned Soldiers with a Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards (tasks: Construct an MDI detonating assembly, prime explosives with MDI and prime explosives with detonating cord) within the past 4 months for AC units.

(2) All AC Combat Engineer squads with an MTP requirement must have employed inert and live demolitions to MTP standards (tasks: Disable bridge with explosives, Construct an abatis and Breach obstacles) in accordance with the frequencies in table 6–90 (AC). Note: The MTP standard for the task, Construct an Abatis, states that an Abatis must be 75 meters long; however, the requirement is for a 6 tree Abatis.

(3) Shape charge/Cratering charge standard. All Combat Engineer squads must have employed inert and live demolitions to create a 3-hole hasty road crater to MTP standards (task: Create a crater obstacle with explosives, and Disable a LOC/airfield) within the past 6 months for AC units.

(4) Bangalore torpedo standard. All AC Combat Engineer platoons must employ a live Bangalore Torpedo within the past 6 months to MTP standards (task: Breach Obstacle (wire obstacle)).

(5) MOPMS standard. All AC Combat Engineer squads and bridge crews must participated in the installation and recovery of the MOPMS Training Dispenser (M136) to operator's manual standards (task: Emplace a tactical (scatterable) minefield) within the past 6 months.

(6) The AC Combat Engineer Company only must have employed the MICLIC, to MTP standards (task: Conduct an in stride breach of a minefield) using three inert line charges at home station within the past 12 months.

*o. Volcano standard.*

(1) Ninety percent (AC) of the assigned Soldiers with a Soldier's Manual requirement must have conducted the DCU–BIT Test to operator's manual standards within the past 6 months.

(2) The Assault & Obstacle Platoon/Section must have successfully employed the Volcano with the M88 and the M89 training device to MTP standards (task: Emplace a scatterable minefield) within the past 6 months for AC units.

*p. Munitions standard.* All SBCT Combat Engineer squads must have employed inert Selected Lightweight Attack Munitions (SLAM) 6 times a year. This strategy requires a pre-deployment firing of a live SLAM at a ratio 1 SLAM to 10 Soldiers.

*q. APOBS standard.* All SBCT Combat Engineer squads must have employed a live APOBS to MTP standards (task: Breach Obstacle (wire obstacle) and antipersonnel mines within the past 12 months.

**Table 6–90**  
**Annual Individual Training for Stryker Brigade Combat Teams (Active) <sup>1,2,3,4</sup>**

Event	Freq
<b>Demolitions:</b>	
<b>Construct MDI detonating assembly</b>	
Prime explosives with MDI	6
Prime explosives with det cord	6
<b>Mine Warfare Installation/Removal</b>	
M15AT Mine	6
M19AT Mine	6
M21AT Mine	6

**Table 6–90**  
**Annual Individual Training for Stryker Brigade Combat Teams (Active) <sup>1,2,3,4</sup>—Continued**

U.S. Anti-handling Devices	6
Hornet3	6
<b>Munitions</b>	
SLAM	6
APOBS	6

Notes:

<sup>1</sup> Frequency allows for 3 live fire qualification exercises and 3 inert sustainment exercises.

<sup>2</sup> Frequency allows for 4 live anti-handling device exercise on inert metallic mines and 2 inert exercises with inert anti-handling device on inert mines.

<sup>3</sup> Frequency allows for 6 inert exercises.

<sup>4</sup> Frequency allows for 6 inert exercises. This strategy requires a pre-deployment live-fire exercise at a ratio of 10 Soldiers to 1 SLAM.

**Table 6–91**  
**Annual Ammunition Requirements for the SBCT Engineer Company (Active) <sup>5</sup>**

Munitions	DODIC	Sep Co Cmbt Eng
Booster Demo, 30 ft MDI M151	MN69 <sup>4</sup>	428
Booster Demo, 10 ft MDI M151	MN68 <sup>4</sup>	428
Bangalore Torpedo	M028/MP03 <sup>6</sup>	9
Cratering Charge(40lb.)	M039	54
Demolitions-TNT(1lb.) <sup>3</sup>	M032	0
Demolitions-TNT(1/4lb) <sup>3</sup>	M030	0
Demolitions-C4(1 1/4lb) <sup>3</sup>	M023	1521
Detonating Cord(FT)	M456	9180
Holder M9	ML45	322
Inert Line Charge <sup>1</sup>	M914	1
Igniter M81	MN08	448
M15AT Mine	K180	9
M16A1AP Mine (Korea only)	K092	9
M19AT Mine	K250	9
M21AT Mine	K181	9
M88 Volcano <sup>2</sup>	K042	8
Mini Tube, 500ft	MN88	53
M23, Mini Tube, 1000ft	MN90	53
Non-electric Cap M14	MN06	377
Rocket (5 inch)	J143	4
Shaped Charge(15 or 40lb)	M420	54

Notes:

<sup>1</sup> Inert Line Charge can be reused 3 times before replacement is required.

<sup>2</sup> M88 canisters will be fired from the four corners only; all other positions will be filled with M89 canisters.

<sup>3</sup> If C–4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4lb package.

<sup>4</sup> Combinations of DODICS can be ordered for annual training, not to exceed the total allocation.

<sup>5</sup> Warning: launch of the line charge by personnel outside of an armored vehicle is prohibited. Under certain circumstances the line charge can prematurely detonate in the air. The charge cannot detonate until the arresting cable is fully extended and the fuze arms. This presents no danger to personnel in a "buttoned up" armored vehicle but could put personnel in danger in open areas. in accordance with TM 9–1375–215–14&p.

<sup>6</sup> The MP03 (2.5Ft. Bangalore) will be issued when requirements and stockages for 5ft. BL will discontinue as current supply stockage is exhausted.

## 6-31. Army Reserve Training Battalions

This section contains certification requirements and ammunition authorizations for committee instructors. Due to the varying timeline requirements, an annual ammunition roll up is not provided. Consult the certification requirements in paragraph 6-21 for specific requirements and resourcing authorizations.

## 6-32. Certification Requirements

*a. M2 Bradley.* (See table 6-92) All M2 Bradley Fighting Vehicle committee instructors will have certified on the Bradley Gunners Skill Test (BGST) and conducted sustainment crew device based gunnery (tables I-II) within the past 12 months. Committee instructors will have conducted sustainment live fire training (tables VI-VIII) within the past 36 months.

**Table 6-92**  
**Ammunition Requirement & Training Strategy for the Bradley Fighting Vehicle Committee Instructors**

table	Freq	DODIC					
		A940	A976	L592	A131	A111	L602
BGST <sup>1</sup>	1						
COFT <sup>1</sup>	2			2			
I-II Per Instructor <sup>2</sup>	1	6	4				
Zero per Instructor	1	6	4	2	100		
VI A/B per Instructor <sup>3</sup>		33	32	24	350		14
VII A/B per Instructor <sup>3</sup>		33	56	24	400		18
VIII A/B per Instructor <sup>3</sup>		33	48	48	450		21
<b>Total per Instructor every 36 Months</b>		<b>111</b>	<b>144</b>	<b>100</b>	<b>1300</b>	<b>1200</b>	<b>53</b>

Notes:

<sup>1</sup> COFT frequency is recommended at 4 hrs per crew every other month.

<sup>2</sup> tables I-II are conducted annually.

<sup>3</sup> tables VI-VIII are conducted once every 36 months.

*b. TOW.* (See table 6-93) Eighty percent of the TOW committee instructors will have; received a GO on all gunners skill test tasks (FM 23-34), familiarized tracking skills using the TOW gunnery trainer TGT and field tactical trainer FTT within the past 24 months.

**Table 6-93**  
**TOW Certification**

Event	Training Device	M80	ATWESS	Smoke	Freq
Gunner Skills Test		0			1
table I - Individual Practice	TGT	0			1
table II - Individual Qualification	TGT	0			1
table III - Advanced Practice	TGT	0			1
table IV - Advanced Qualification	TGT	0			1
table V A/B - Baseline Practice	TFTT	60			1
Co/PLT FTX		0	14	8	1
<b>Total per system for Certification</b>		<b>DODIC</b>			<b>Rounds</b>
		L592			60
		L367			14
		G978			8

c. *Javelin*. (See table 6–94) Eighty percent of the assigned Javelin committee instructors will have verified lock-on and tracking skills using the Javelin BST (FM 3–23.37) within the past 12 months. Eighty percent of the assigned Drill Sergeants involved in Javelin training will have verified lock-on and tracking skills within the past 24 months.

**Table 6–94**  
**Javelin Verification**

Event	Rounds	Freq
Weapon Training	0	2
Gunnery Sustainment	0	1
Advanced Tracking	0	0
Verification/Qualification	0	1
<b>Total Rounds per Gunner</b>		<b>0</b>

Notes:

<sup>1</sup> No training ammunition is required for any Javelin event.

d. *AT–4*. (See table 6–95) Eighty percent of the assigned AT–4 committee instructors will have fired the 9mm Tracer Trainer (tables I and III of appendix B, FM 3–23.35) within the past 12 months. Eighty percent of the assigned Drill Sergeants will have fired the 9mm Tracer Trainer (table I of appendix B, FM 3–23.35) within the past 24 months. One live missile is authorized for each Training Battalion.

**Table 6–95**  
**AT–4 (FM 3–23.35)**

Event	DODIC	Rounds	Freq
table I Instr Day		12	1
table II Instr Night		12	0
table III Day Qual		8	1
table IV Night Qual		8	0
table V Adv Fire		6	0
<b>Total Rounds for Qualification</b>			
Qual/Instructional Fire	A358	20	
Additional 9mm per Training Bn for Drill Sgts	A358	1080	
Live Missile per Bn	C995	1	

e. *MK–19 GMG*. (See table 6–96) Eighty percent of the assigned committee instructors and Drill Sergeants will have fired table I (TC 23–AIMSS) within the past 12 months. Committee instructors will have fired table III within the past 24 months. table I –IV requires 44 or 62 rounds depending upon the type target used and sight. Consult TC 23–AIMSS to determine the required amount.

**Table 6–96**  
**MK 19 GMG (TC 23–AIMSS)**

Event	DODIC	Rounds	Freq
Pre Marksmanship Training		TADSS	4
<b>Day Qualification</b>			
table I Day Practice <sup>1</sup>		44/62	1
table II Day Qual		44/62	0
<b>Night Qualification</b>			
AN–PEQ–2A/AN/PAS–13			
table III Night Practice <sup>1</sup>		44/62	0.5
table IV Night Qual		44/62	0
<b>Total Rounds</b>			
<b>Day Practice</b>			
table I	B584		44/62
<b>Night Practice</b>			
table III	B584		44/62
Notes:			
<sup>1</sup> Indicates Standard.			

*f. M60/M240B MG/M249 LMG.* (See table 6–97) Eighty percent of the assigned committee instructors will have qualified on the 10-meter and Transition record courses within the past 12 months and qualified on the night vision sight / NVD transition record course within the past 24 months. Eighty percent of the assigned Drill Sergeants will have completed instructional firing within the past 24 months. Instructional firing is Day Transition fire.

**Table 6–97**  
**M240B/M249 LMG (FM 3–22.68)**

Event	Type	DODIC	Rounds	Freq
Pre Marksmanship Training	TADSS		0	4
<b>Iron Sight Qualification</b>				
<b>table IV</b>				
10 M Zero/Practice <sup>1</sup>	Ball/EST	AA44/ A143	197	1
10 M Record <sup>1</sup>	Ball/EST	AA44/ A143	91	1
<b>Subtotal</b>	<b>Ball/EST</b>	<b>AA44/ A143</b>		<b>288/0</b>
<b>table V</b>				
Iron Sight/MGO Transition Zero/Practice <sup>1</sup>	Mix	A064/ A131	182	1
Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A064/ A131	154	1
<b>Subtotal</b>	<b>Mix</b>	<b>A064/ A131</b>		<b>336</b>
<b>Thermal Weapon Sight Qualification<sup>1</sup></b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064/ A131	36	0.5
TWS Night Field Fire III <sup>1</sup>	Mix	A064/ A131	154	0.5
table VI TWS Practice & Record <sup>1</sup>	Mix	A064/ A131	308	0.5
<b>Subtotal</b>	<b>Mix</b>	<b>A064/ A131</b>		<b>498</b>
<b>Infrared Aiming Light Qualification</b>				
IR Zero	Mix	A064/ A131	18	0.5
IR Night Field Fire III	Mix	A064/ A131	154	0.5
table VI IR Practice & Record	Mix	A064/ A131	308	0.5

**Table 6–97**  
**M240B/M249 LMG (FM 3–22.68)—Continued**

<b>Subtotal</b>	<b>Mix</b>	<b>A064/ A131</b>	<b>480</b>
<b>Total Rounds for Qualification</b>			
<b>M249 LMG/ M240B</b>			
10-meter Qualification (Ball/EST)	AA44/ A143	288/0	
Transition Qualification (Mix)	A064/ A131	336	
TWS Qualification	A064/ A131	498	
IR Qualification	A064/ A131	480	
Drill Sergeant Instructional Fire <sup>1</sup>	A064/ A131	336	
Notes:			
<sup>1</sup> Indicates Standard.			

g. *M249 AR*. (See table 6–98) Eighty percent of the assigned committee instructors will have; qualified on the 10-meter and Transition record courses within the past 12 months; qualified on the night vision sight / NVD transition record course within the past 24 months. Eighty percent of the assigned Drill Sergeants will have completed instructional firing within the past 24 months. Instructional firing is 10-meter fire.

**Table 6–98**  
**M249AR Qualification (FM 3–22.68)**

<b>Event</b>	<b>DODIC</b>	<b>Type</b>	<b>Rounds</b>	<b>Freq</b>
Prel Marksmanship Training		TADSS	0	4
<b>Iron Sight Qualification</b>				
<b>Firing table I</b>				
10m Zero <sup>1</sup>		Ball/EST	6	1
10m Practice & Record <sup>1</sup>		Ball/EST	102	1
<b>Subtotal</b>		<b>Ball</b>		<b>108</b>
<b>Firing table II</b>				
Transition Zero <sup>1</sup>		Mix	12	1
Transition Practice & Record <sup>1</sup>		Mix	132	1
<b>Subtotal</b>		<b>Mix</b>		<b>144</b>
<b>Firing table III TC 23–AIMSS</b>				
<b>TWS Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>		Mix	36	0.5
TWS Night Field Fire III <sup>1</sup>		Mix	66	0.5
TWS Limited Visibility Practice		Mix	66	0.5
TWS Limited Visibility Qualification <sup>1</sup>		Mix	66	0.5
<b>Subtotal</b>				<b>234</b>
<b>IR Qualification</b>				
IR Zero		Mix	18	0.5
IR Night Field Fire III		Mix	66	0.5
IR Practice		Mix	66	0.5
IR Qualification		Mix	66	0.5
<b>Subtotal</b>		<b>Mix</b>		<b>150</b>
<b>Total Rounds for Qualification</b>				
10-meter Qualification Ball/EST	AA44	Commercial Pack	108/0	

**Table 6–98**  
**M249AR Qualification (FM 3–22.68)—Continued**

Transition Qualification (4&1 Mix)	A064	Mil Pack	144
TWS Qualification	A064	Mil Pack	234
IR Qualification	A064	Mil Pack	150
Drill Sergeant Instructional Fire <sup>1</sup>	A064	Commercial Pack	108/0

Notes:

<sup>1</sup> Indicates Standard.

*h. M16/M4.* (See table 6–99) Eighty percent of the assigned committee instructors and Drill Sergeants responsible for teaching BRM will have qualified on the day record course within the past 12 months and qualified on the NBC record and unassisted night record courses within the past 24 months.

**Table 6–99**  
**M16/M4 Qualification (FM 3.22–9)**

Event	DODIC	Type	Rounds	Freq
<b>Phase I</b>				
Pre Marksmanship Training		TADSS	0	4
<b>Phase II</b>				
Iron Sight Zero <sup>1</sup>	AA33	Ball	18	1
<b>Iron Sight Qualification</b>				
<b>Phase III</b>				
Iron Sight Practice Record	AA33	Ball	40	1
Iron Sight Record <sup>1</sup>	AA33	Ball	40	1
NBC Practice	AA33	Ball/EST	20	0.5
NBC Record <sup>(1)(2)</sup>	AA33	Ball/EST	20	0.5
Unassisted Night Practice	AA33/A063	Ball/EST	20/10	0.5
Unassisted Night Record <sup>(1)(2)</sup>	AA33/A063	Ball/EST	20/10	0.5
<b>Rounds For Qualification wo EST</b>				
Iron Sight Qualification	AA33		98	
NBC Qualification	AA33		40	
Unassisted Night Fire	AA33/A063		40/20	
<b>Rounds For Qualification with EST</b>				
Iron Sight Qualification	AA33		98	
NBC Qualification		N/A	0	
Unassisted Night Fire		N/A	0	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 denotes every two years.

*i. STX Lane Training:* (See table 6–100) this table provides blank ammunition for the M16/M4, M249, M240, and M2 to those USAR units specifically designated as force support package one or two (FSP 1 or 2).

(1) Standards for lanes training will be based on the applicable ARTEP and structured to train collective events and evaluate designated early deploying units METL. Priority for lanes will be to Force Support Package (FSP) units, Divisional Round Out (RO) units, BCT Separate Brigades (ESB's), Attack Helicopter (AH–64) units, and units with Latest Arrival Date (LAD's) to theater \* 30 days. The specific units are selected and designated in writing BI-annually by the CONUSA's. STX Lane Training table contains the authorized number of rounds per weapon. Lane training will be conducted during Annual Training (AT) or Multiple Unit Assembly (MUTA). Further guidance on lane training is in TC 25–10.



(2) The intent of the lanes training program is to provide the optimal collective training event and readiness assessment possible for high priority ESB, CS, and CSS units that are not resourced for RC Training Support Division (TSD) exercise units support these evaluations.

**Table 6–100**

**Total per Weapon<sup>1</sup>**

Event	Rounds	Freq	DODIC
<b>IDT/AT Lane Training</b>			
M16/M4	40 Blank	2	A080
<b>Total Per Weapon</b>		<b>80</b>	
M249 AR	100 Blank	2	A075
<b>Total Per Weapon</b>		<b>200</b>	
M2	50 Blank	2	A598
<b>Total Per Weapon</b>		<b>100</b>	
M240/M249LMG	100 Blank	2	A111/A075
<b>Total Per Weapon</b>		<b>200</b>	

Notes:

<sup>1</sup> This table is for CS and CSS high priority units only.

## Chapter 7 Aviation

### 7–1. Description

*a.* This chapter provides weapons standards, training strategies, and resource requirements for units equipped with the AH–64A/D, OH–58D, UH–60, CH–47 and UH–1. This chapter also provides weapons standards, training strategies and resource requirements for all individual and crew served weapon systems within their respective tables of organization and equipment (TOE) and modified tables of organization and equipment (MTOE) i.e., ground weapons including M16, M2, M203, MK19, etc. Lastly, this chapter provides annual pyrotechnic training requirements.

*b.* This chapter's objective is to integrate with the Combined Arms Training Strategy (CATS) while assisting unit and field commanders to achieve Department of the Army standards by Component (Active and Reserve). The standards and strategies are designed to ensure acceptable levels of weapon systems proficiency throughout applicable Army Aviation units.

### 7–2. Individual Weapons Training, Requirements and Qualification.

*a.* This section provides ground weapon qualification, collective training and resource authorizations for Active Army, Reserve, and National Guard Aviation units for individual and crew served ground weapons. Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and one for units without the EST 2000.

*b.* Active Component (AC) units (to include TDA units with personnel assigned individual weapons) will qualify every six months. Reserve Component (RC) personnel assigned individual weapons will qualify every 12 months. Consult the appropriate section of this chapter to determine authorized resourcing for qualification. Personnel in any TDA unit who are not assigned individual weapons are exempt from weapon qualification in accordance with (in accordance with) AR 350–41, paragraph 10–2f (4).

*c.* Ground weapon qualification requirements consist of iron sight qualification and add on device qualification such as Close Combat Optic (CCO) for the M16/M4. The item is resourced only if the unit MTO&E includes that particular item of equipment.

### 7–3. Training Aids, Devices, Simulators and Simulations (TADSS)

A realistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew served weapons TADSS information are contained in Appendix B.

### 7–4. Non-Infantry Urban Operations Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for non-Infantry units.

This training strategy identifies the training ammunition resources required to conduct (UO) training. This is an optional training event based on a commanders' Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO Training Strategy information is contained in Appendix C.

## 7-5. Qualification and Collective Training Standards

a. Active Component Individual Weapon Qualification Requirements. Some qualification events are categorized by ancillary optics or NVD assigned. Only Soldier's assigned additional optics/NVD are authorized to conduct the qualification event listed.

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon/Company LFX to standard annually and participate in an external evaluation to standard annually. Consult the appropriate cs/CSS ARTEP MTP for standards.

b. Army Reserve Individual Weapon Qualification Requirements. Army Reserve Soldiers will meet the same standard as Active Army Soldiers; however the qualification frequency is every 12 months. Some qualification events are categorized by ancillary optics/NVDs assigned. Only Soldiers assigned additional optics/NVDs are authorized to conduct the qualification event listed.

(1) Collective training requirements in paragraph c contain strategies for Aviation Soldiers.

(2) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(3) Collective Training Requirements. Soldiers will participate in an external evaluation to standard every 24 months. Consult the appropriate cs/CSS ARTEP MTP for standards

c. National Guard Individual Weapon Qualification Requirements. NG Soldiers will meet the same standard as Active Army Soldiers; however the qualification frequency is every 12 month.

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in an external evaluation to standard within the past two training years. Consult the appropriate ARTEP MTP for standards.

## 7-6. Individual Weapons Training, Requirements and Qualification

a. M9 Automatic Pistol Standard. (See table 7-1)

(1) Ninety percent of Soldiers assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 every six months.

(2) Eighty percent of National Guard and Army Reserve assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 every 12 months.

**Table 7-1**  
**M9 Qualification (FM 3- 23.35)**

Event	Type	DODIC	Rounds	FREQ	
				AC	USAR/NG
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball		40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball		40	2	1
CPQC table V Night Fire <sup>1,2</sup>	Ball/EST		7	2	1
CPQC table V NBC Fire <sup>1,2</sup>	Ball/EST		5	2	1
<b>Total Rounds for Qualification</b>					
Non EST Equipped Units	Ball	AA49		184	92
EST Equipped Units	Ball/EST	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard

<sup>2</sup> Installations equipped with EST 2000, will conduct NBC & Night Fire on EST 2000.

*b. M16 Rifle/M4 Carbine.* ( See table 7–2)

(1) Primary and Secondary day sight: The primary sight is either the CCO/ACOG or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(2) Day Requirements without EST 2000:

(3) Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(4) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard will alternate primary and secondary sight qualification every year, if equipped. OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required request AA45.

(5) Day Requirements without EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day and NBC record course.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(6) Day Requirements with EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(7) Night Requirements: Soldiers will execute the night unassisted record fire course in accordance with FM 3–22.9 if EST 2000 is not available.

(8) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 7–2**  
**M16/M4 Qualification (FM 3.22–9)**

DODIC <sup>3</sup>				FREQ	
Event	Type	AA33	A063	AC	USAR/NG
Iron Sight (Primary Sight)					
Pre Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
Close Combat Optic (Primary Sight) <sup>2</sup>					
Pre Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Prac Record	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer/EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer/EST	20	10	2	1
Subtotal (AA33/A063)					

**Table 7–2**  
**M16/M4 Qualification (FM 3.22–9)—Continued**

Units not equipped with EST			160/40	80/20
Units equipped with EST			0/0	0/0
<b>Thermal Weapon Sight<sup>2</sup></b>				
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36	2	1
Night Field Fire I	Ball	36	2	1
Practice Record	Ball	40	2	1
Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>304</b>	<b>152</b>
<b>Infrared<sup>2</sup></b>				
IR Zero <sup>1</sup>	Ball	18	2	1
IR Night Field Fire I	Ball	36	2	1
IR Practice Record	Ball	40	2	1
IR Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>268</b>	<b>134</b>
<div> <div>Total Rounds</div> <div>AC w/o EST/w/ EST      USAR/NG w/o EST/w/ EST</div> </div>				
	AA33	A063	AA33	A063
Iron Sight Only Qual	356/196	40/0	178/98	20/0
CCO & BIS Qual	454/294	40/0	276/196	20/0
Thermal Weapon Sight	304/304	0/0	152/152	0/0
Infrared	268/268	0/0	134/134	0/0
<b>Collective Training</b>				
	<b>FREQ</b>			
	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>USAR/NG</b>
SQD/PLT/Co STX/FTX	A080	120	2	1
EXEVAL	A080	120	1	.5
SQD/PLT LFX	A059/A063	130/20	1	0

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

<sup>4</sup> Installations Equipped with the EST 2000, will conduct NBC & Night Fire on EST 2000.

*c. M203 GL Standard.* (See table 7–3)

(1) Ninety percent of Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every six months.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every 12 months.

**Table 7-3**  
**M203 GL Qualification (FM 3-22.31)**

Event	Type	B519	AC	FREQ
				USAR/NG
Day Zero <sup>1</sup>	TP	6	2	1
Day Qualification <sup>1</sup>	TP	15	2	1
Total	TP	B519	42	21
<b>Collective Training</b>				
SQD/PLT LFX	TP	4	1	0
Total	TP	B519	4	0

Notes:  
<sup>1</sup> Indicates Standard.

*d. M249 AR Standard.*(See table 7-4)

(1) Primary and Secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.9 and if equipped with night vision devices, conduct night qualification in accordance with TC 23-AIMSS every six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3-22.9 and night qualification standards in TC 23-AIMSS every 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 7-4**  
**M249AR Qualification (FM 3-22.9)**

Event	Type	DODIC		FREQ	
		A062	A064	AC	USAR/NG
Iron Sight (Primary Sight)					
Pre Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
Subtotal (A062/A064)					
Units not equipped with EST				216/288	108/144
Units equipped with EST				0/288	0/144
Machine Gun Optic (Primary Sight) <sup>2</sup>					

**Table 7–4**  
**M249AR Qualification (FM 3–22.9)—Continued**

Pre Marksmanship Training	TADSS		4	N/A
Firing table I				
10m Zero (MGO) <sup>1</sup>	Ball or EST	6	2	N/A
10m Practice (MGO)	Ball or EST	51	2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51	2	N/A
Iron Sight 10m Zero	Ball or EST	6	1	N/A
Iron Sight 10m Practice	Ball or EST	51	1	N/A
Iron Sight 10m Record	Ball or EST	51	1	N/A
Firing table II				
Transition Zero (MGO) <sup>1</sup>	Mix	12	2	N/A
Transition Practice (MGO)	Mix	66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix	66	2	N/A
Iron Sight Transition Zero	Mix	12	1	N/A
Iron Sight Transition Practice	Mix	66	1	N/A
Iron Sight Transition Record	Mix	66	1	N/A
Subtotal (A062/A064)				
Units not equipped with EST			324/432	N/A
Units equipped with EST			0/432	N/A
Firing table III TC 23–AIMSS				
Thermal Weapon Sight <sup>2</sup>				
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1
TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Practice	Mix	66	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			468	234
Infrared <sup>2</sup>				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
Subtotal			432	216
Total				
	AC w/o EST/w/ EST		USAR/NG w/o EST/w/ EST	
	A062	A064	A064	
Iron Sight Only	216/0	288/288	144/144	
MGO & Iron Sight	324/0	432/432	N/A	
Thermal Weapon Sight	0/0	468/468	234/234	
Infrared	0/0	432/432	216/216	
Collective Training				
			FREQ	
	DODIC	Rounds	USAR/NG	
SQD/PLT/Co STX/FTX	A075	300	1	
EXEVAL	A075	300	0.5 <sup>3</sup>	

**Table 7-4**  
**M249AR Qualification (FM 3-22.9)—Continued**

SQD/PLT LFX	A064	300	0
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Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> Only Soldiers Assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.  
<sup>3</sup> Biennial Event.

*e. M249 Machine Gun Standard.*(See table 7-5)

(1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3-22.68 every six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3-22.68 every 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course.

(5) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

*f. M60 Machine Gun/M240B Machine Gun Standard.*

(1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3-22.68 lists a 7 to 9 round burst. Qualification must be conducted using a 5 to 7 round burst.

(3) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3-22.68 every six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(4) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3-22.68 every 12 months. The USAR and NG will alternate primary and secondary sight qualification every year if equipped.

(5) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course.

(6) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3-22.68.

(7) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 7-5**  
**M60/M240B/M249 LMG Qualification (FM 3-22.68)**

Event	Type	DODIC		FREQ		USAR/NG
		A143/ A062	A131/ A064	AC w/o MGO	AC w/ MGO	
Pre Marksmanship Training	TADSS			4		4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero For Bipod & Tripod <sup>1</sup>	Ball/EST	24	~	2	3	1
10m Practice	Ball/EST	161	~	2	3	1

**Table 7–5**  
**M60/M240B/M249 LMG Qualification (FM 3–22.68)—Continued**

10m Record <sup>1</sup>	Ball/EST	91	~	2	3	1
<b>Subtotal with EST</b>	<b>Ball</b>			<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal without EST</b>	<b>Ball</b>			<b>552</b>	<b>828</b>	<b>276</b>
<b>Firing table II</b>						
Transition Zero <sup>1</sup>	Mix	~	28	2	3	1
Transition Practice	Mix	~	154	2	3	1
Transition Record <sup>1</sup>	Mix	~	154	2	3	1
<b>Subtotal</b>	<b>Mix</b>			<b>672</b>	<b>1008</b>	<b>336</b>
<b>TWS Qualification</b>						
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	~	36	2		1
TWS Night Field Fire III	Mix	~	154	2		1
TWS Limited Visibility Practice	Mix	~	154	2		1
TWS Limited Visibility Qual <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>				<b>996</b>		<b>498</b>
<b>IR Qualification</b>						
IR Zero <sup>1</sup>	Mix	~	18	2		1
IR Night Field Fire III	Mix	~	154	2		1
IR Practice	Mix	~	154	2		1
IR Qualification <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>	<b>Mix</b>			<b>960</b>		<b>480</b>
<b>Total Rounds</b>						
			<b>AC</b>	<b>USAR/NG</b>		
			<b>A062</b>	<b>A064</b>	<b>A062</b>	<b>A064</b>
Primary Sight Qual w/EST			0	672	0	336
Primary Sight Qual wo/EST			552	672	276	336
MGO & Iron Sight Qual wo/EST			828	1008		
MGO & Iron Sight Qual w/EST			0	1008		
TWS Qualification			0	996	0	498
IR Qualification			0	960	0	480
<b>Collective Training</b>						
	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>USAR/NG</b>		
SQD/PLT/Co STX/FTX	A111/A075	200	2	1		
EXEVAL	A111A075	200	1	0.5 <sup>1,2</sup>		
SQD/PLT LFX	A131/A064	300	1	0		

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> Biennial Event.

g. *MK–19 GMG Standard.* (See table 7–6)

(1) Ninety percent of Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–23.27 every six months. The MK–19 table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3–23.27 to determine which table to utilize and number of rounds to request.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–23.27 every 12months.

(3) Day requirements: Qualify on Day Qualification table II.



(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ-2A and AN/PAS-13 HTWS.

**Table 7-6**  
**MK-19 GMG Qualification (FM 3-23.27)**

Event	Type	DODIC	Rounds	AC	FREQ
					USAR/NG
Pre Marksmanship Training			4	4	
<b>Day Qualification</b>					
table I Day Practice	TP		62	2	1
table II Day Qualification <sup>1</sup>	TP		62	2	1
<b>Night Qualification</b>					
<b>AN/PEQ-2A</b>					
table III Night Practice	TP		62	2	1
table IV Night Qualification <sup>1</sup>	TP		62	2	1
<b>AN/PAS-13</b>					
table III Night Practice	TP		62	2	1
table IV Night Qualification <sup>1</sup>	TP		62	2	1
<b>Total Rounds for Qualification</b>					
<b>Day Qualification</b>					
table I & II		B584		248	124
<b>Night Qualification</b>					
AN/PEQ-2A		B584		248	124
AN/PAS-13		B584		248	124
<b>Collective Training</b>					
SQD/PLT LFX		B584	30	1	0

Notes:

<sup>1</sup> Indicates Standard.

*h. M2 .50 cal MG Standard.*( See table 7-7)

(1) Ninety percent of Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-23.65 every six months.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-23.65 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ-2A and AN/PAS-13 HTWS.

**Table 7–7**  
**M2 .50 cal Qualification (FM 3–23.65)**

Event	Type	DODIC	Rounds	FREQ	
				AC	USAR/NG
Pre Marksmanship Training	TADSS	A557	0	4	4
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix		140	2	1
table II Day Zero/Qual <sup>1</sup>	Mix		140	2	1
<b>Subtotal</b>			<b>560</b>	<b>280</b>	
<b>Night Qualification</b>					
<b>AN/PEQ–2A</b>					
Night Zero1	Mix		26	2	1
table III Night Practice	Mix		126	2	1
table IV Night Qual <sup>1</sup>	Mix		126	2	1
<b>Subtotal</b>			<b>556</b>	<b>278</b>	
<b>AN/PAS–13 HTWS</b>					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix		36	2	1
table III Night Practice	Mix		126	2	1
table IV Night Qual <sup>1</sup>	Mix		126	2	1
<b>Subtotal</b>			<b>576</b>	<b>288</b>	
<b>Total Rounds for Qualification</b>					
<b>Day Qualification</b>					
table I & II	Mix	A557		560	280
<b>Night Qualification</b>					
AN/PEQ–2A Qual	Mix	A557		556	278
AN/PAS–13 HTWS Qual	Mix	A557		576	288
<b>Collective Training</b>					
SQD/PLT/Co STX/FTX	Blank	A598	100	2	1
SQD/PLT LFX	Mix	A557	100	1	0

Notes:  
<sup>1</sup> Indicates Standard.

*i. M1200 Shotgun Standard.* (See table 7–8)

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 7–8**  
**M1200 Qualification (STP 19–95C1–SM)**

Event	Type	DODIC	Rounds	FREQ	
				AC	USAR/NG
Pre Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A011	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2	1
<b>Total Rounds for Qualification</b>					
Total	Buckshot	A011		26	13

Notes:

<sup>1</sup> Indicates Standard.

*j. AT–4 Standard.* (See table 7–9) Ten percent of the assigned Soldiers (E–5s and below) will qualify on Day Qualification table III in accordance with FM 3–23.25 every 12 months for Active, Reserve and National Guard. Qualification is conducted using the M287 sub caliber tracer trainer.

**Table 7–9**  
**AT–4 Qualification (FM 3–23.25 & TC 23–AIMSS)**

			FREQ
Event	Rounds	AC	USAR/NG
table I Instr Day	12	1	1
table II Instr Night	12	1	1
table III Day Qual <sup>2</sup>	8	1	1
Total Rounds for Qualification			
Qual/Instr Fire	A358	32	32
Collective Training			
SQD/PLT/Co FTX	6	2	0
EXEVAL (ARTEP) <sup>1</sup>	6	1	0
Total per AT–4 Gunner			
ATWESS	L367	18	
M136 per squad	C995	0	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 10 percent of E–5 and below will qualify on table III only.

*k. Hand Grenade Standard.* ( See table 7–10) Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 every 12 months for all Active Army, Army Reserve and National Guard units.

**Table 7–10**  
**Hand Grenade (FM 3–23.30)<sup>2</sup>**

FREQ				
Event	DODIC	Rounds	AC	USAR/NG <sup>2</sup>
Qualification				
Mock Bay		2	0.5	0.5
Hand Grenade Qual Course <sup>1</sup>	G878	6	1	1
Total For Qual	G878		7	7
Collective Training				
PLT/Co LFX		6	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 Indicates every two years.

*l.* Claymore Mine Standard. (See table 7–11) Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months. Army Reserve and National Guard Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months.

**Table 7–11**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	Rounds	FREQ	
			AC	USAR/NG
Employment Instruction/Qual <sup>1</sup>	Inert	N/A	1	1
<b>No rounds required for qualification</b>				

Notes:

<sup>1</sup> Indicates Standard.

*m.* CS Chamber Strategy (See table 7–12)

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 7–12**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	FREQ	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

n. Pyrotechnics. table 7–13 lists the pyrotechnics training annual requirements for Battalion and Company.

**Table 7–13**  
**Pyrotechnics (Company Annual Rollup) <sup>1, 2</sup>**

Munitions	DODIC	BN	SEP Co	USAR/NG BN	USAR/NG SEP Co
HG Smk HC	G982	48	9	18	9
HG Smk GRN	G940	16	2	4	2
HG Smk YEL	G945	48	11	18	9
HG Smk RED	G950	36	10	18	10
HG Smk VIOL	G955	28	5	10	5
HG Smk CS	G963	28	5	10	5
Smk Pot Floating M4A2	K511	20	4	0	4
SIG Illum GRN Para	L305	8	1	2	1
SIG Illum RED Para	L306	28	5	10	5
SIG Illum WH Para	L307	20	4	8	4
SIG Illum RED Star	L311	8	1	2	1
SIG Illum WH Star	L312	20	4	8	4
SIG Illum GRN Star	L314	20	4	8	4
Flare Surface Trip	L495	28	5	10	5
Sim Proj Grnd Burst	L594	104	18	29	18
Sim Proj Burst Liq(SPAL), M9 w/20 simulators	L595	2 <sup>1</sup>	0	0	0
Sim Booby trap Flash	L598	40	8	16	8
Sim Booby-trap Illum	L599	28	5	10	5
Sim Booby trap Whistle	L600	28	5	10	5
Sim HG	L601	56	10	20	10

Notes:

<sup>1</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit commanders may desire to use more or less pyrotechnics for a particular exercise that what is suggested.

<sup>2</sup> OPFOR requirements are included in the above table.

## 7–7. Aviation Proponent Strategies

This section provides a methodology to attain and sustain weapon system(s) proficiency throughout the training year. The programs, if completed to standard, will provide that all individuals, crews, sections/platoons, and companies/troops in a battalion/squadron are adequately trained and able to maintain weapon systems proficiency.

a. Training programs have been developed for each Component (Active and Reserve) and are indexed for cross-reference at para.7–8. The standard is stated at the beginning of each program and is accompanied by a training strategy (table) that identifies training events and ammunition requirements. Individual training requirements are given first, followed by crew, team/platoon and company/troop as applicable. Proficiency is achieved through the use of simulation devices, dry-fire and live-fire exercises and tables.

b. To achieve crew level qualification as required by the STRAC standard and FM 3–04.140, the crew qualification table (table VIII - or validation on table VII) must be live fired and objectively scored. The Aerial Weapons Scoring System (AWSS) will be requested through the unit's Army Commands and Army Service Commands and will be used to score crew training (VII) and qualification (VIII) tables. If the AWSS is not available to the firing unit, an alternative scoring system or methodology must be used to evaluate gunnery standards. The battalion/squadron commander, and/or the S3, and the Master Gunner will determine (or develop) and utilize an alternative method of scoring. Crews firing will be briefed on the scoring methodology and will be held to that standard.

c. The training programs were developed on the assumption that training events will be evenly spaced throughout the training year. Resource availability (e.g., ammunition and/or ranges) may allow a commander more live fire opportunities, but at a reduced density or of shorter duration.

## 7-8. Training Aids, Devices, Simulators and Simulation (TADSS)

a. General. Aviation relies on simulators and other training devices to train and sustain individual and crew tasks. Actual equipment and training ammunition is used to assess combat readiness at the individual and crew level. The training strategy combines training ammunition (Gunnery tables) with TADSS to provide the comprehensive helicopter and ground weapons training programs.

b. Objective. Simulators and procedural trainers provide switchology and procedural steps for weapon systems employment and helps in sustaining basic gunnery skills. Used within their limitations, flight/weapon simulators can be used for assessment purposes.

c. **Helicopter TADSS.** The following is a list of TADSS that support helicopter weapon training strategies

(1) AH-64A Combat Mission Simulator (CMS). The AH-64A CMS provides a training capability for flight and weapons delivery, normal and emergency procedures and sensor system operating tasks required in the operational design of the AH-64A helicopter. The device consists of two crew stations mounted on separate motion platforms. An instructor station is available in either crew station. The pilot and copilot/gunner have the capability to train individually or as a crew performing an integrated combat mission using all weapon systems. The AH-64A CMS will support weapon system training for all weapons on the AH-64A.

(2) AH-64D Longbow Crew Trainer (LCT). The LCT is configured for the AH-64D airframe and weapon systems and provides a similar training capability to that of the AH-64 ACMS.

(3) AH-64A Cockpit, Weapons and Emergency Procedures Trainer (CWEPT). The CWEPT provides training for AH-64A pilots and copilot/gunners. The device is a non-motion based procedural trainer used for training individuals in cockpit, weapon systems, and emergency condition switchology and procedural step training. The CWEPT is used to train individuals who are undergoing AH-64A transition qualification. The Apache Crew Trainer (ACT) is an upgraded version of the CWEPT. It is a non-motion procedural trainer with improvement to the visual database, flight modeling, weapons systems and targeting. The CWEPT and ACT are used only at Fort Rucker during initial airframe qualification.

(4) Target Acquisition Designation System (TADS) Selected Task Trainer (TSTT). The TSTT is a non-motion based procedural trainer (front crew station) that provides selected switchology and procedural task training to a copilot/gunner (CPG) in weapon systems employment in the AH-64A.

(5) OH-58D Cockpit Procedures Trainer (CPT). The CPT is used to train individual aviators undergoing initial airframe qualification (system is available only at Fort Rucker). The device is a non-motion based procedural trainer used for training in the use of the Kiowa Warrior mission equipment package and in aircraft start-up and shutdown procedures. It provides limited training in weapons engagement procedures.

(6) OH-58D Crew Station Mission Equipment Trainer (CSMET). The CSMET is a low fidelity, non-motion based procedural trainer. It utilizes touch screen technology to support refresher and limited sustainment training for individuals and crews in operation and employment of the Kiowa Warrior mission equipment package. The device provides a capability for training in weapon systems engagement procedures.

(7) UH-60 Synthetic Flight Training Simulator. Once software/hardware upgrades have been applied, the SFTS will be able to provide the flight dynamics associated with the Air Volcano mine dispensing training to the pilot/copilot crewmembers.

(8) Aerial Weapons Scoring System (AWSS). The AWSS is an integrated system of computer-controlled sensors used to score live-fire helicopter gunnery exercises. This objective scoring system allows the commander to validate training standards, ensure training effectiveness, and help substantiate training ammunition requirement levels. The system uses acoustical sensors to score 2.75" rocket/rocket sub-munitions impact locations and a Doppler radar system to score cannon and machine-gun fire. A Laser Aim Scoring System (LASS) is a sub-system of the AWSS and is used to detect, identify, track and "score" laser energy of the selected target designator when used in conjunction with the Hellfire training missile (HTM). The AWSS is not designed to accommodate service munitions.

(9) MILES/AGES. The MILES/AGES is a force-on-force training device that allows simulated air-to-ground and air-to-air engagements. It uses eye-safe lasers and computers to assess proficiency during force-on-force training exercises. MILES provides immediate casualty assessment. MILES simulates actual aircraft systems. MILES allows units to conduct operations as they would in combat and provides an objective after-action review capability

(10) Hellfire Dummy Missile. The Hellfire Dummy Missile assists individual and crew sustainment flight and gunnery training by providing a realistic means to practice flight operations with the aircraft at combat weights. It also provides ground armament crews with hands on arming/rearming (and downloading as applicable) with a full size and weight missile.

(11) Hellfire Training Missile (HTM). The HTM allows crews to train Hellfire engagement procedures without the expenditure of a live missile. It provides the individual/crew with symbology to search, acquire and simulate missile firing modes and techniques. The HTM provides the flight crew most of the pertinent tactical missile functions as an actual missile.

(12) Captive Flight Trainer (CFT). The CFT allows flight crews to practice air-to-air Stinger missile engagement by providing all pre-launch indications of an actual missile. The CFT is a live missile without the launch motor, flight

motor and warhead. By using actual missile components, the system gives realistic cockpit indications (aural and visual) of seeker head spin up/cool down, acquisition and tracking reticles and missile lock on target.

(13) Field Handling Trainer (FHT). The FHT replicates the weight and physical appearance of a Stinger missile. The FHT allows an aircrew to experience flight conditions similar to those encountered while flying with actual air-to-air Stinger missiles. It also allows armament personnel to practice loading and downloading procedures. The FHT does not provide any electronic or cockpit displays.

(14) Remotely Piloted Vehicle Target System (RPVTS). The RPVTS consists of two 1/5 scale propeller driven target aircraft configured to resemble the MI-24 Hind-D helicopter (an auto-gyro model) and the SU-25 Frog foot. These can be equipped with an IR source for Stinger missile live-fire engagements. When available, these targets are government owned and contractor operated. If Stinger missiles are to be available for live-fire training, units should request target support through their Army Commands and Army Service Commands.

## 7-9. STX Lane Training

This table provides blank ammunition for the M16/M4, M249, M240, and M2 to those NG units specifically designated as force support package one or two (FSP 1 or 2).

a. Standards for Lane Training: (See table 7-13) will be based on the applicable ARTEP and structured to train collective events and evaluate designated early deploying units METL. Priority for lanes will be to Force Support Package (FSP) units, Divisional Round Out (RO) units, Enhanced Separate Brigades (ESB's), Attack Helicopter (AH-64) units, and units with Latest Arrival Date (LAD's) to theater \* 30 days. The specific units are selected and designated in writing BI-annually by the CONUS's. STX Lane Training table contains the authorized number of rounds per weapon. Lane Training will be conducted during Annual Training (AT) or Multiple Unit Assembly (MUTA). Further guidance on lane training is in TC 25-10.

b. The intent of the Lane Training program is to provide the optimal collective training event and readiness assessment possible for high priority ESB, cs, and CSS units that are not resourced for STX/FTX blank ammunition in the individual weapons tables. These evaluations are supported by RC Training Support Division (TSD) exercise units.

**Table 7-14**  
**STX Lane Training<sup>1</sup>**

Event	Type	DODIC	Rounds	FREQ
<b>IDT/AT Lane Training</b>				
M16/M4	Blank	A080	40	2
<b>Total Per Weapon</b>				<b>80</b>
M249 AR	Blank	A075	100	2
<b>Total Per Weapon</b>				<b>200</b>
M2	Blank	A598	50	2
<b>Total Per Weapon</b>				<b>100</b>
M240/M249LMG	Blank	A111/A075	100	2
<b>Total Per Weapon</b>				<b>200</b>

Notes:

<sup>1</sup> This table applies to cs and CSS high priority units only.

## 7-10. AH-64/D Active Component

a. *Standard.*(See table 7-15)

(1) Eighty-five percent of the assigned aircrews at company/troop must be crew qualified (table VIII) every 12 months.

(2) Eighty-five percent of the assigned aircrews at company/troop must complete advanced table gunnery (table X or XII) every 12 months.

b. *Training Strategy.* The individual and collective training strategy is given in tables 7-1 thru 7-12.

**Table 7–15**  
**AH–64 A/D Units, Active Component Annual Training Strategy for (CAV SQDN or ATK BN)**

Event	FREQ	Mthd/Trng Level	DODIC					
			HA13	HA17	PD68 <sup>4</sup>	B118	LA06	L367 <sup>5</sup>
table III Cmdr's Eval	1	CMS/LCT - Ind						
table IV Cmdr's Eval	1	CMS/LCT - Ind						
TSTT	4 <sup>1</sup>	Ind						
CMS/LCT <sup>1</sup>	1	Ind						
table V HGST/G–COFT/Crew Int	1	FM 3–04.140 & CMS/ LCT/ACFT Ind-Crew						
table VI Weapons Cali/Veri	1	Live - Sys Armt Off/ Crew	12			150		
table VII D Crew Training	1	Live - Crew	16	4	1	100	10	
table VII N Crew Training	1	Live - Crew	16	4	1	100	10	
table VIII D Crew Training	1	Live - Crew	16	4	1	100	10	
table VIII N Crew Training	1	Live - Crew	16	4	1	100	10	
table IX (D/N) Adv table		Dry - Team/PLT	0					
table X (D/N) Adv table <sup>2,3</sup>	1	Live - Team/PLT	8		1	150	10	
table XI (D/N) Adv table	1	Dry - Co/Trp						
table XII (D/N) Adv table <sup>2,3</sup>	1	Live - Co/Trp	8	6	1		15	
FTX	2	Live - BN/SQDN						10
<b>Totals by Aircrew</b>			<b>92</b>	<b>22</b>	<b>6</b>	<b>880</b>	<b>65</b>	<b>10</b>
Units with 18 aircrews <sup>6</sup>			1656	396		15840	1170	360
Units with 29 aircrews <sup>6</sup>			2540	590		22880	1685	500
Units with 35 aircrews <sup>6</sup>			3092	722		28160	2075	620

Notes:

<sup>1</sup> Based on availability/location of CMS/LCT to unit.

<sup>2</sup> One engagement will be conducted under MOPP–4 conditions in accordance with ATM Standards.

<sup>3</sup> Unit commander, S–3, and/or Master Gunner will determine ammunition distribution for advanced table events based on unit training requirements and METL.

<sup>4</sup> Hellfire missiles are not STRAC resourced. When available through stockpile reliability, surveillance, stock rotation, or shelf life, live missiles may be used.

<sup>5</sup> ATWESS are used in support of MILES/AGES training.

<sup>6</sup> table 7–15 STRAC based on 24 aircraft/aircrews through table XII, and 8 additional aircrews are resourced through table VIII at the battalion squadron level.

## 7–11. Reserve Component (National Guard and Army Reserve).

*a. Standard.* (See table 7–16) Eighty-five percent of the assigned aircrews at company/troop must be crew qualified (table VIII) within the designated training period as prescribed by applicable regulations and/or directives by the NGB or USARC.

*b. Training Strategy.* The individual and crew training strategy are given in table 7–1 thru 7–12.

**Table 7–16**  
**AH–64 A/D Units, Reserve (USAR and NG) Annual Training Strategy for (CAV SQDN or ATK BN) <sup>2, 3</sup>**

Event	FREQ	Mthd/Trng Lvl	DODIC					
			HA13	HA17	PD68 <sup>4</sup>	B118	LA06	L367 <sup>5</sup>
table III Cmdr's Eval	1	CMS/LCT - Ind						
table IV Cmdr's Eval	1	CMS/LCT - Ind						
TSTT	4 <sup>1</sup>	Ind						
CMS/LCT <sup>1</sup>	1	Ind						



**Table 7-16**  
**AH-64 A/D Units, Reserve (USAR and NG) Annual Training Strategy for (CAV SQDN or ATK BN) <sup>2, 3</sup>—Continued**

table V HGST/G-COFT/Crew Int	1	FM 3-04.140 &CMS/LCT/ACFT Ind-Crew					
table VI Wpns Cali/Veri	1	Live - Sys Armt Off/Crew	12			150	
table VII D Crew Training	1	Live - Crew	16	4	1	100	10
table VII N Crew Training	1	Live - Crew	16	4	1	100	10
table VIII D Crew Training	1	Live - Crew	16	4	1	100	10
table VIII N Crew Training	1	Live - Crew	16	4	1	100	10
FTX	1	Live - BN/Sqdn					10
<b>Totals by Aircrew</b>			<b>76</b>	<b>16</b>	<b>4</b>	<b>550</b>	<b>40</b>
Units with 18 aircrews <sup>6</sup>			1368	288		9900	720
Units with 29 aircrews <sup>6</sup>			2204	464		15950	1160
Units with 35 aircrews <sup>6</sup>			2660	560		19250	1400

Notes:

<sup>1</sup> Based on availability/location of CMS/LCT to unit.

<sup>2</sup> One engagement will be conducted under MOPP-4 conditions in accordance with ATM Standards.

<sup>3</sup> Unit commander, S-3, and/or Master Gunner will determine ammunition distribution for advanced table events based on unit training requirements and METL.

<sup>4</sup> Hellfire missiles are not STRAC resourced. When available through stockpile reliability, surveillance, stock rotation, or shelf life, live missiles may be used.

<sup>5</sup> ATWESS are used in support of MILES/AGES training.

<sup>6</sup> table 7-16 STRAC based on 24 aircraft/aircrews through table XII, and 8 additional aircrews are resourced through table VIII at the battalion squadron level.

## 7-12. OH-58D Active Component

a. *Standard.*(See table 7-17)

(1) Eighty-five percent of the assigned aircrews at company/troop must be crew qualified (table VIII) every 12 months.

(2) Eighty-five percent of the assigned aircrews at company/troop must complete advanced table gunnery (table X or XII) every 12 months.

b. *Training Strategy.* The individual, crew, and collective training strategy are given in table 7-1 thru 7-12.

**Table 7-17**  
**OH-58D Units, Active Component Annual Training Strategy (CAV SQDN or ATK BN) <sup>7</sup>**

Event	FREQ	Meth/Trng Lvl	HA13	HA17	DODIC			
					PD68/ PL96	A557	LA06	L367 <sup>5,6</sup>
table III Cmdr's Eval	1	Live - Ind	10	4		200	5	
table IV Cmdr's Eval	1	Live - Ind	10	4		200	5	
CSMET	4 <sup>2</sup>	Individual						
table V HGST/Crew Int	1	FM 3-04.140 &CSMET/ACFT Ind-Crew						
table VI Wpns Cali/ Veri <sup>1</sup>	1	Live - Sys Armt Off/Crew	7			200		
table VII D Crew Training <sup>1</sup>	1	Live - Crew	10	4	1 ea	300	10	
Crew Training <sup>1</sup>	1	Live - Crew	9	3	1 ea	300	10	
table VIII D Crew Training <sup>1</sup>	1	Live - Crew	10	4	1 ea	300	10	
table VIII N Crew Training <sup>1</sup>	1	Live - Crew	9	3	1 ea	300	10	
Advanced table	1	Dry - Team/PLT						
table X (D/N) Adv table <sup>3,4</sup>	1	Live - Team/PLT	14		1 ea	300	10	

**Table 7-17**  
**OH-58D Units, Active Component Annual Training Strategy (CAV SQDN or ATK BN) <sup>7</sup>—Continued**

Event	FREQ	Meth/Trng Lvl	HA13	HA17	DODIC			
					PD68/ PL96	A557	LA06	L367 <sup>5,6</sup>
table XI (D/N) Adv table	1	Dry - Co/Trp						
table XII (D/N) Adv table <sup>3,4</sup>	1	Live - Co/Trp	14		1 ea	300	15	
FTX	2	Live - BN/SQDN						10
<b>Totals by Aircrew</b>			<b>93</b>	<b>22</b>	<b>6</b>	<b>2400</b>	<b>75</b>	<b>20</b>
Units with 24 aircrews <sup>7</sup>			2008	528		54900	1200	320
Units with 32 aircrews <sup>7</sup>			2752	704		72000	1800	480
Units with 40 aircrews <sup>7</sup>			3496	880		91200	2400	640

Notes:

<sup>1</sup> Indicate Standard.

<sup>2</sup> Based on availability/location of CSMET.

<sup>3</sup> One engagement will be conducted under MOPP-4 conditions in accordance with ATM Standards.

<sup>4</sup> Unit commander, S-3, and/or Master Gunner will determine ammunition distribution for advanced table events based on unit training requirements and METL.

<sup>5</sup> Hellfire and Stinger missiles are not STRAC resourced. When available through stockpile reliability, surveillance, stock rotation, or shelf life, live missiles may be used.

<sup>6</sup> ATWESS are used in support of MILES/AGES training.

<sup>7</sup> table 7-17 STRAC based on 30 aircraft/aircrews through table XII, and 8 additional aircrews are resourced through table VIII at the battalion squadron level.

### 7-13. Reserve Component (National Guard and Army Reserve).

*a. Standard.* ( See table 7-18) Eighty-five percent of the assigned aircrews at company/troop must be crew qualified (table VIII) with within the designated training period as prescribed by applicable regulations and/or directives by the NG or USARC.

*b. Training Strategy.* The individual and crew training strategy are given in table 7-1 thru 7-12.

**Table 7-18**  
**OH-58 Units, Reserve Component (USAR and NG) Annual Training Strategy for CAV SQDN or ATK BN<sup>3, 4, 7</sup>**

Event	FREQ	Meth-Trng Lvl	HA13	HA17	DODIC			
					PD68/PL96	A557	LA06	L367 <sup>5,6</sup>
table III Cmdr's Evaluation <sup>1</sup>	1	Live - Indl	10	4		200	5	
table IV Cmdr's Evaluation <sup>1</sup>	1	Live - Ind	10	4		200	5	
CSMET	4 <sup>2</sup>	Ind						
table V HGST/Crew Int <sup>1</sup>	1	FM 3-04.140 &CSMET/ACFT Ind- Crew						
table VI Wpns Cali /Veri <sup>1</sup>	1	Live - Sys Armt Off / Crew	7			200		
table VII D Crew Training <sup>1</sup>	1	Live - Crew	10	4	1 ea	300	10	
table VII N Crew Training <sup>1</sup>	1	Live - Crew	9	3	1 ea	300	10	
table VIII D Crew Training <sup>1</sup>	1	Live - Crew	10	4	1 ea	300	10	
table VIII N Crew Training <sup>1</sup>	1	Live - Crew	9	3	1 ea	300	10	
FTX	1	Live - BN /Sqdn						10
<b>Totals by Aircrew</b>			<b>65</b>	<b>22</b>	<b>4</b>	<b>1800</b>	<b>50</b>	<b>10</b>
Units with 24 aircrews <sup>7</sup>			1560	528		43200	1200	240
Units with 32 aircrews <sup>7</sup>			2080	704		57600	1600	320
Units with 40 aircrews <sup>7</sup>			2600	880		72000	2000	400

**Table 7-18**  
**OH-58 Units, Reserve Component (USAR and NG) Annual Training Strategy for CAV SQDN or ATK BN<sup>3, 4, 7</sup>—Continued**

Totals by Aircrew	93	22	2400	75	20
Units with 24 aircrews <sup>7</sup>	2008	528	54900	1200	320
Units with 32 aircrews <sup>7</sup>	2752	704	72000	1800	480
Units with 40 aircrews <sup>7</sup>	3496	880	91200	2400	640

Notes:

<sup>1</sup> Cells filled with Gray Indicate Standard.

<sup>2</sup> Based on availability/location of CSMET.

<sup>3</sup> One engagement will be conducted under MOPP-4 conditions in accordance with ATM Standards.

<sup>4</sup> Unit commander, S-3, and/or Master Gunner will determine ammunition distribution for advanced table events based on unit training requirements and METL.

<sup>5</sup> Hellfire and Stinger missiles are not STRAC resourced. When available through stockpile reliability, surveillance, stock rotation, or shelf life, live missiles may be used.

<sup>6</sup> ATWESS are used in support of MILES/AGES training.

<sup>7</sup> table 7-18 STRAC based on 30 aircraft/aircrews through table XII, and 8 additional aircrews are resourced through table VIII at the battalion squadron level.

#### 7-14. Door gunnery (UH-60, CH-47, UH-1) Active Component.

*a. Standard.* (See table 7-19) Eighty-five percent of the assigned M60D/M240D door gunners must have completed qualification in accordance with FM 3-04.140 every 12 months. It is recommended that units conduct advanced table gunnery based on mission training requirements, resource availability (e.g., suitable range) and unit METL.

*b. Training Strategy.* The individual, crew, and platoon training strategy are given in table 7-1 thru 7-12.

#### 7-15. Reserve Component (National Guard and Army Reserve).

*a. Standard.* (See table 7-19) Eighty-five percent of the assigned M60D/M240D door gunners must have completed qualification in accordance with FM 3-04.140 within the designated training period as prescribed by applicable regulations and/or directives by the NGB or USARC.

*b. Training Strategy.* The Individual and crew training strategy are given in table 7-1 thru 7-12.

**Table 7-19**  
**Door Gunnery, Active and Reserve Component (USAR and NG) Annual Training Strategy for applicable UH-60, and UH-1 Units<sup>7</sup>**

Event	FREQ		Meth -Trng lvl	DODIC		
	AC	USAR/NG		A143 <sup>1</sup> ALL	A131 <sup>1</sup> MIX	A111 <sup>1</sup> BLANK
table I <sup>2</sup> 10m Practice <sup>1</sup>	1	1	Live - Ind	117		
table II Record <sup>1</sup>	1	1	Live - Ind	119		
table III Transition Practice <sup>1</sup>	1	1	Live - Ind		182	
table IV Transition Record <sup>1</sup>	1	1	Live - Ind		154	
table V <sup>3</sup> Door Gunner Skills Test <sup>1</sup>	1	1	FM 3-04.140 Ind			
table VI D <sup>4</sup> Aircraft Transition <sup>1</sup>	1	1	Live - Ind		100	
table VI N Aircraft Transition <sup>1</sup>	1	1	Live - Ind		100	
table VII D Training table <sup>1</sup>	1	1	Live - Crew		150	
table VII N <sup>5</sup> Training table <sup>1</sup>	1	1	Live - Crew		150	
table VIII D Qualification table	1	1	Live - Crew		150	
table VIII N <sup>5</sup> Qualification table	1	1	Live - Crew		150	
table IX <sup>6</sup> Adv table (AC) <sup>1</sup>	1	0	Live - SEC/PLT			100
table X <sup>6</sup> Advanced table (AC) <sup>1</sup>	1	0	Live - SEC/PLT		150	

**Table 7-19**  
**Door Gunnery, Active and Reserve Component (USAR and NG) Annual Training Strategy for applicable UH-60, and UH-1 Units<sup>7</sup>—Continued**

FTX	2	1	200
<b>Totals By Component</b>			
AC Gunner	236	1286	500
Reserve Component Gunner	236	1136	200

Notes:

<sup>1</sup> Indicate Standard.

<sup>2</sup> tables reflect requirements for one door gunner position per airframe. Total rounds per airframe double for second door gunner position filled per MTO&E.

<sup>3</sup> tables I through IV found in FM 3-22.67

<sup>4</sup> Events/tables V through X found within FM 3-04.140.

<sup>5</sup> NBC requirements, based on unit METL & SOP, can be integrated into transition table.

<sup>6</sup> Night training/qualification requirements based on unit METL and SOP.

<sup>7</sup> FM 3-04.140 provides suggested training for advanced table gunnery.

### 7-16. Air Volcano (UH-60) Active Component.

a. Standard. Eighty-five percent of designated Pilots In Command (PC) personnel who are Air Volcano system qualified must have completed Gate 3 training requirements every 12 months

b. Training Strategy. The training strategy is given in table 7-20.

### 7-17. Reserve Component (National Guard and Army Reserve).

a. Standard. Eighty-five percent of designated Pilots in Command (PC) personnel who are Air Volcano system qualified must have completed Gate 3 training requirements with the designated training period as prescribed by applicable regulations and/or directives by the NGB or USARC.

b. Training Strategy. The training strategy is given in table 7-20.

**Table 7-20**  
**M139 Air Volcano, Active and Reserve Component (USAR and NG) Annual Training Strategy for applicable UH-60 Units<sup>1</sup>**

Event	Exercise	Mthd-Trng Lvl	FREQ		K042
			AC	USAR/NG	
Gate 1 Proficiency <sup>1</sup>	System Operation / Employment	UH-60 SFTS - Ind	4	2	
Gate 2 Proficiency <sup>1</sup>	Mine Dispensing	Live - Acft/M139 w/M89 Tng Device - Crew	2	1	
Gate 3 Proficiency <sup>1</sup>	Mine Dispensing	Live - Acft/M139 w/M88 Mines - (4 corners) -Crew	2	1	4
<b>Totals By Component</b>					
AC - 4 Canisters x 3 Aircrews			2	0	24
RC - 4 Canisters x 3 Aircrews			1	0	12

Notes:

<sup>1</sup> Until hardware/software upgrades to the SFTS have been applied, the simulator Instructor/Operator will be required to manually change profile conditions to replicate changes in the operational weight, associated performance parameters and CG shift as applicable.

## Chapter 8

### Military Police Weapon Systems

#### 8-1. Description

a. This chapter provides weapon standards, training strategies and resource authorizations for Military Police, SRT, and CID assigned to the following units unless otherwise stated: HHC Military Police Brigade (CORPS and I/R), HHD Military Police Battalion (CID, I/R, EPW/CI), Military Police Company (Light Infantry Division, Heavy Division, Airborne Division, Combat Support, Air Assault Division, Escort Guard, Guard), Military Police Detachment (EPW/CI, I/R, Confinement Facility, Criminal Investigations Division (CID) Heavy, CID Light, Corps Area Support, CMD & CONT Platoon/Company/Battalion, PM Section, CMD PM TM, HQ TM, OPS Section, Desk Team, TAI Team, MPI

Team, FP Team, PM Teams, CID, Old Guard), Military Police Teams (Customs, Military Working Dogs, CMD&CONT Battalion/Company, Physical Security), Army Reserve Military Police, and National Guard Military Police. Military Police, SRT, and CID each have a separate section in this chapter that specifies training requirements and ammunition resourcing. Para 2 applies to Military Police Soldiers, Para 9 applies to SRT Soldiers. Para 10 applies to all CID Soldiers.

*b.* The objective of STRAC is to assist commanders in attaining and sustaining standards in accordance with their unit make-up and component, and to ensure that combat proficiency and readiness is maintained throughout the force. Weapon system specific training devices should be used to progressively aid individual and collective skill development in garrison, local training areas and combat training centers.

## 8-2. Individual Weapons Training, Requirements and Qualification

This section contains weapon qualification, collective training, and resource requirements for Military Police Active Component (AC), National Guard (NG), and United States Army Reserve (USAR). Individual weapon qualification requirements contain two strategies; one for units equipped with the EST 2000 and for units without the EST 2000.

## 8-3. Training Aids, Devices, Simulators and Simulations (TADSS)

A realistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew served weapons TADSS information are contained in Appendix B.

## 8-4. Non-Infantry Urban Operations Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct (UO) training. This is an optional training event based on a commanders' Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO Training Strategy information is contained in Appendix C.

## 8-5. Individual Weapon Qualification Requirements

*a.* M9 Automatic Pistol Standard.(See table 8-1)

(1) Ninety percent of Soldiers assigned the M9 will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) in FM 19-10 every six months. Each Soldier will fire the Military Police Night Firearms sustainment course (MPNFSC) every six months. Each Soldier will fire the NBC record every six months in accordance with (FM 3-23.35 and FM 19-10). Note: If the MPFQC is not available, the Combat Pistol Qualification Course (CPQC) will be utilized.

(2) Eighty percent of National Guard and Army Reserve assigned the M9 will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) in FM 19-10 within the past 12 months. The requirements include qualifying on the MPFQC in accordance with FM 19-10 every 12 months and firing the MPNFSC within the past 12 months.

(3) Requirements without EST 2000: Conduct the MPFQC Record NBC, and Night fire in accordance with FM 19-10.

**Table 8-1**  
**M9 Qualification (FM 3-23.35 and FM 19-10)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq	
				AC	NG/USAR
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	50	2	1
MPFQC Qualification (FM 3-23.35) <sup>1</sup>	Ball	AA49	50	2	1
MP Night Fire Sustainment Course <sup>1,3</sup>	Ball/EST	AA49	20/0	2	1
NBC Fire <sup>1,3</sup>	Ball/EST	AA49	20/0	2	1
<b>Total Rounds</b>	Ball/EST	AA49		280/200	140/100

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> OCONUS units will request DODIC A363 in lieu of AA49.

<sup>3</sup> Installations equipped with EST 2000, will conduct NBC & Night Fire on EST 2000.

b. M16 Rifle/M4.(See table 8–2)

(1) Primary and Secondary day sight: The primary sight is either the CCO/ACOG or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight Day Requirements without EST 2000:

(2) Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard will alternate primary and secondary sight qualification every year, if equipped.

(4) OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required request AA45.

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day and NBC record course.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(5) Day Requirements with EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): (See table 8–2) Soldiers assigned the CCO will qualify on the day record course.

(6) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 8–2**  
**M16/M4 Qualification (FM 3–22.9)**

		DODIC <sup>3</sup>		Freq	
Event	Type	AA33	A063	AC	RC
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
Close Combat Optic (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Practice Record	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight <sup>2</sup>					

**Table 8–2**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

Zero (WFOV & NFOV) <sup>1</sup>	Ball	36	2	1	
Night Field Fire I	Ball	36	2	1	
Practice Record	Ball	40	2	1	
Record <sup>1</sup>	Ball	40	2	1	
Subtotal			304	152	
Infrared <sup>2</sup>					
IR Zero <sup>1</sup>	Ball	18	2	1	
IR Night Field Fire I	Ball	36	2	1	
IR Practice Record	Ball	40	2	1	
IR Record <sup>1</sup>	Ball	40	2	1	
Subtotal			268	134	
Total Rounds					
AC w/o EST/w/ EST		RC w/o EST/w/ EST			
AA33		A063	AA33	A063	
Iron Sight Only Qual	356/196	40/0	178/98	20/0	
CCO & BIS Qual	454/294	40/0	276/196	20/0	
Thermal Weapon Sight	304/304	0/0	152/152	0/0	
Infrared	268/268	0/0	134/134	0/0	
Collective Training					
			Freq		
	DODIC	Rounds	AC	NG	USAR
Sqd/Plt/Co STX/FTX	A080	120	2	1	0
EXEVAL	A080	120	1	1	0.5
Sqd/Plt LFX	A059/A063	130/20	1	0	0

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free are required, request DODIC AA45.

c. M203 GL Standard.(See table 8–3)

(1) Ninety percent of Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every six months.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every 12 months.

**Table 8–3**  
**M203 Qualification (FM 3–22.31)**

				<b>Freq</b>	
<b>Event</b>	<b>Type</b>	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>RC</b>
Day Zero <sup>1</sup>	TP	B519	6	2	1
Day Qualification <sup>1</sup>	TP	B519	15	2	1
<b>Total</b>					
TP	Mil Pack	B519		42	21

Notes:

<sup>1</sup> Indicates Standard.

d. M249 AR Standard.(See table 8–4)

(1) Primary and Secondary day sight: The primary sight is the Machine Gun Optic (MGO) or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and if equipped with night vision devices, conduct night qualification in accordance with with FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in FM 3–22.68 every 12 months. The NG and USAR will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposure is increased by two seconds for each target exposure.

**Table 8–4**  
**M249AR Qualification (FM 3–22.68)**

Event	Type	DODIC		Frequency	
		A062	A064	AC	RC
Pre Marksmanship Training	TADSS			4	4
<b>Iron Sight Qualification</b>					
<b>Firing table I</b>					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
<b>Firing table II</b>					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
<b>Subtotal (A062/A064)</b>					
Units not equipped with EST				216/288	108/144
Units equipped with EST				0/288	0/144
<b>Machine Gun Optics (Primary Sight)</b>					
Pre Marksmanship Training	TADSS			4	N/A
<b>Firing table I</b>					
10m Zero (MGO) <sup>1</sup>	Ball or EST	6		2	N/A
10m Practice (MGO)	Ball or EST	51		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51		2	N/A
Iron Sight 10m Zero	Ball or EST	6		1	N/A
Iron Sight 10m Practice	Ball or EST	51		1	N/A
Iron Sight 10m Record	Ball or EST	51		1	N/A
<b>Firing table II</b>					
Transition Zero (MGO) <sup>1</sup>	Mix		12	2	N/A
Transition Practice (MGO)	Mix		66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		66	2	N/A



**Table 8–4**  
**M249AR Qualification (FM 3–22.68)—Continued**

Iron Sight Transition Zero	Mix	12	1	N/A
Iron Sight Transition Practice	Mix	66	1	N/A
Iron Sight Transition Record	Mix	66	1	N/A
<b>Subtotal (A062/A064)</b>				
Units not equipped with EST			324/432	N/A
Units equipped with EST			0/432	N/A
<b>TWS Qualification</b>				
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix	36	2	1
TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Practice	Mix	66	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	66	2	1
<b>Subtotal</b>			468	234
<b>IR Qualification</b>				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
<b>Subtotal</b>			432	216
<b>Total</b>				
		<b>AC w/o EST w/ EST</b>		<b>RC w/o/EST w/ EST</b>
		<b>A062</b>	<b>A064</b>	<b>A062</b>
				<b>A064</b>
Iron Sight Only		216/0	288/288	108/0
MGO & Iron Sight		324/0	432/432	N/A
Thermal Weapon Sight		0/0	468/468	0/0
Infrared		0/0	432/432	234/234
				216/216

Notes:

<sup>1</sup> Indicates Standard.

e. M249 LMG Standard.(See table 8–5)

(1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The NG and USAR will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposure is increased by two seconds for each target exposure.

f. M60 Machine Gun/M240B Machine Gun Standard. (See table 8–5)

(1) Primary and Secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the

primary sight. Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3–22.68 lists a 7 to 9 round burst. Qualification must be conducted using a 5 to 7 round burst. Refer to table 3–4 for ammunition allocation.

(2) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of National Guard and Army Reserve Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The NG and USAR will alternate primary and secondary sight qualification every year if equipped.

(4) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposure is increased by two seconds for each target exposure.

**Table 8–5**  
**M249/M240 LMG (FM 3–22.68)**

Event	Type	DODIC <sup>2</sup>		Freq		RC
		A143/A062	A131/A064	AC w/o MGO	AC w/ MGO	
Pre Marksmanship Training	TADSS			4	4	4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero-Bipod & Tripod <sup>1</sup>	Ball/EST	24	~	2	3	1
10m Practice	Ball/EST	161	~	2	3	1
10m Record <sup>1</sup>	Ball/EST	91	~	2	3	1
<b>Subtotal with EST</b>	Ball			0	0	0
<b>Subtotal without EST</b>	Ball			552	828	276
<b>Firing table II</b>						
Transition Zero <sup>1</sup>	Mix	~	28	2	3	1
Transition Practice	Mix	~	154	2	3	1
Transition Record <sup>1</sup>	Mix	~	154	2	3	1
<b>Subtotal</b>	<b>Mix</b>			<b>672</b>	<b>1008</b>	<b>336</b>
<b>TWS Qualification</b>						
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	~	36	2		1
TWS Night Field Fire III	Mix	~	154	2		1
TWS Limited Visibility Prac	Mix	~	154	2		1
TWS Limited Visibility Qual <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>				<b>996</b>		<b>498</b>
<b>IR Qualification</b>						
IR Zero <sup>1</sup>	Mix	~	18	2		1
IR Night Field Fire III	Mix	~	154	2		1
IR Practice	Mix	~	154	2		1
IR Qualification <sup>1</sup>	Mix	~	154	2		1
<b>Subtotal</b>	<b>Mix</b>			<b>960</b>		<b>480</b>
<b>Total Rounds</b>						
		AC		RC		
		A143/A062	A131/A064	A143/A062	A131/A064	
Primary Sight Qual w/EST		0	672	0	336	

**Table 8-5**  
**M249/M240 LMG (FM 3-22.68)—Continued**

Primary Sight Qual wo/EST	552	672	276	336
MGO & Iron Sight Qual wo/EST	828	1008		
MGO & Iron Sight Qual w/EST	0	1008		
TWS Qualification	0	996	0	498
IR Qualification	0	960	0	480

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA45.

g. MK-19 GMG Standard.(See table 8-6)

(1) Ninety percent of Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 every six months. The MK-19 table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3-22.27 to determine which table to utilize and number of rounds to request.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the MK-19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.27 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ-2A and AN/PAS-13 HTWS.

**Table 8-6**  
**MK 19 GMG Qualifications (FM 3-22.27)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training		TADSS	4	4	
table I Day Practice	TP	B584	62	2	1
table II Day Qualification <sup>1</sup>	TP	B584	62	2	1
<b>Night Qualification AN/PEQ-2A (IR)</b>					
table III Night Practice		B584	62	2	1
table IV Night Qualification <sup>1,2</sup>		B584	62	2	1
<b>AN/PAS-13 (Thermal)</b>					
table III Night Practice	TP	B584	62	2	1
table IV Night Qualification <sup>1</sup>	TP	B584	62	2	1
<b>Total For Qualification</b>					
table I & II	TP	B584		248	124
AN/PEQ-2A	TP	B584		248	124
AN/PAS-13	TP	B584		248	124

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Night qualification is required for each NVD assigned.

h. M2 .50 Cal MG Standard.(See table 8-7)

(1) Ninety percent of Soldiers assigned the M2 .50 Cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.65 every six months.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned the M2 .50 Cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3-22.65 every 12 months.

(3) Day requirements: Qualify on Day Qualification table II.

(4) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned: AN/PEQ-2A and AN/PAS-13 HTWS.

**Table 8-7**  
**M2 .50 Cal Qualification (FM 3-22.65)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		4	4	
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
<b>Subtotal</b>			<b>560</b>	<b>280</b>	
<b>Night Qualification</b>					
<b>AN/PEQ-2A</b>					
Night Zero <sup>1</sup>	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>			<b>556</b>	<b>278</b>	
<b>AN/PAS-13 HTWS</b>					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>			<b>576</b>	<b>288</b>	
<b>Total</b>					
table I & II	Mix	A557		560	280
AN/PEQ-2A Qualification	Mix	A557		556	278
AN/PAS-13 HTWS Qualification	Mix	A557		576	288

Notes:  
<sup>1</sup> Indicates Standard.

i. M1200 Shotgun Standard. (See table 8-8)

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19-95C1-SM.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 8-8**  
**M1200 Qualification (FM 19-10 STP 19-95C14-SM-TG)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A101	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A101	10	2	1
<b>Total</b>	Buckshot	A101		26	13

Notes:  
<sup>1</sup> Indicates Standard.

j. AT-4 Standard.(See table 8-9)

(1) Active Army: Ten percent of the assigned Soldiers (E-5s and below) will meet the individual requirements III in accordance with FM 3-23.25 every 12 months.

(2) National Guard: Ten percent of the assigned Soldiers (E-5s and below) meet the individual requirements III in accordance with FM 3-23.25 every 24 months.

(3) United States Army Reserve: No training requirement.

**Table 8-9.**  
**AT-4 Qualification (FM 3-23.25)**

Event	DODIC	Rounds	Freq	
			AC	RC
table I Instructional Day		12	1	0.5
table II Instructional Night		12	1	0.5
table III Day Qualification <sup>1, 2</sup>		8	1	0.5
table IV Night Qualification <sup>1</sup>		8	0	0.5
table V Advanced Fire		6	0	0
<b>Qualification/Instructional Fire</b>	<b>A358</b>		<b>32</b>	<b>20/0</b>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 10 percent of E-5 and below not assigned to an Infantry/Scout squad qualify on table III only (All Others).

k. *Hand Grenades*.(See table 8-10)

(1) Live grenade throw is not required for qualification. Mock Bay training is required for the live hand grenade throw in accordance with FM 3-23.30.

(2) CS/CSS: Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 and throw a live grenade within the past 12 months.

**Table 8-10**  
**Hand Grenade (FM 3-23.30)**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
	<b>Qualification</b>				
Mock Bay	M228	G878	2	0.5	0.5
Hand Grenade Qualification Course <sup>1</sup>	Fuze,HG	G878	6	1	1
Total For Qualification	Fuze,HG	G878		7	7
Live Grenade Throw	Frag, HG	G881	1	0.5	0.5

Notes:

<sup>1</sup> Indicates Standard.

l. Claymore Mine.(See table 8-11)

(1) Active Army Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every 12 months.

(2) Each Platoon will have emplaced, fired, and recovered one live claymore mine during a live fire qualification in accordance with 23-23 every 12 months.

(3) Army Reserve and National Guard Requirements will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23-23 every 12 months.

(4) USAR Training Battalion: Eighty percent assigned M18A1/A2 claymore mine committee instructors will have emplaced, fired, and recovered an inert claymore mine in accordance with FM 23-23 every 12 months.

**Table 8–11**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	Rounds	Freq	
			AC	RC
Employment Instruction/Qualification <sup>1</sup>	Inert	N/A	1	1
No rounds required for qualification				

Notes:

<sup>1</sup> Indicates Standard.

*m. Light Vehicle Obscuration Smoke System (LVOSS).* ( See table 8–12) M90 Smoke Grenade. Each Active Army MP tactical vehicle mounted with the LVOSS, M305, M310, or the M257, Army Security Vehicle (ASV) is authorized one M90 smoke grenade mounted to those vehicles. It is at the commander's discretion which Soldiers will operate and fire the M315 system. Commanders must ensure all Soldiers are familiar with the functional operation of the M315 Grenade Launcher.

**Table 8–12**  
**Light Vehicle Obscuration System (LVOSS) M310**

Event	Type	DODIC	Rounds per sys	Freq	
				AC	RC
Employment Instruction	M90	GG03	4	1	0
No rounds required for qualification					

Notes:

<sup>1</sup> 1 per LVOSS on each vehicle.

*n. Armored Security Vehicle (ASV).* ( See table 8–13) Active Army units assigned the ASV are allowed to train 2 crews (1 gunner each) on all tables identified in the chart below at a frequency of every six months due to low density of vehicles and continuous operational status when deployed.

**Table 8–13**  
**Armored Security Vehicle**

Event	Weapon(s)	DODIC	Rounds	Freq
				AC only
Employment Instruction			4	
table I Practice/instructional	MK19	B584	40	2
table II Practice/instructional	M2/M48	A557	154	2
table III Record Fire	MK19	B584	40	2
table IV Record Fire	M2/M48	A557	196	2
table V Night Fire Qualification	MK19	B584	44	2
table VI Night Fire Qualification	M2/M48	A577	66	2
table VII Instructional Fire	M2/M48/MK19	A557/B584	34/133	2
table VIII	M2/M48/MK19	A557/B584	34/133	2
Total Rounds for Qualification				
Weapon				
MK19	B584		780	
M2/M48	A557		968	

## 8-6. Military Police Proponent Strategies

This section provides a methodology to attain and sustain weapon system(s) proficiency throughout the training year. The programs, if completed to standard, will provide that all individuals, crews, sections/platoons, and companies in a battalion are adequately trained and able to maintain weapon systems proficiency.

## 8-7. TADSS.

Shoot/Don't Shoot Stress Training Device (SDSSTD). The SDSSTD is a single system simulator trainer that provides preliminary marksmanship training on the 9mm Beretta pistol and 12 gauge shotgun. This system has up to 40 SDSSTD scenarios to train law enforcement and Special Reaction Team personnel. The SDSSTD training is conducted in a classroom environment. Training with the SDSSTD is conducted on large screen (7' x 9') video projection. Results are provided by replay or printed record.

## 8-8. Collective Training

a. Collective training requirements in paragraph c contain strategies for Soldiers assigned to a Military Police Company.

b. Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

c. Collective Training Requirements. Military Police will participate in a Platoon/Company LFX to standard annually; participate in an external evaluation to standard annually. Consult the Military Police ARTEP MTP for standards.

(1) *M16/M4*. (See table 8-14) lists the collective training resourcing for a Military Police Unit.

**Table 8-14**  
**M16/M4 Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Plt/Co LFX <sup>1</sup>	A059/A063	130/20	1	0
Sqd/Plt/Co FTX/STX	A080	40	2	1
EXEVAL (ARTEP) <sup>1</sup>	A080	40	1	0.5
Total Rounds For Collective Training				
Ball	A059		130	0
Tracer	A063		20	0
Blank	A080		120	80

Notes:

<sup>1</sup> Indicates Standard.

(2) *M249 AR*. table 8-15 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8-15**  
**M249 AR Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Plt/Co LFX <sup>1</sup>	A064	300	1	0
Sqd/Plt/Co FTX/STX	A075	200	2	1
EXEVAL (ARTEP) <sup>1</sup>	A075	300	1	0.5
Total Rounds For Collective Training				
Mix	A064		300	0
Blank	A075		700	350

Notes:

<sup>1</sup> Indicates Standard.

(3) *M249 LMG*. table 8–16 lists collective training resourcing for all Soldiers assigned the M249 in the LMG role. The LIN # for the M249 LMG is M39263.

**Table 8–16**  
**M249 LMG Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Plt/Co LFX <sup>1</sup>	A064	300	1	0
Sqd/Plt/Co FTX/STX	A075	200	2	1
EXEVAL (ARTEP) <sup>1</sup>	A075	200	1	0.5
<b>Total Rounds For Collective Training</b>				
Mix	A064		300	0
Blank	A075		600	300

Notes:  
<sup>1</sup> Indicates Standard.

(4) *M240B MG*. table 8–17 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8–17**  
**M240B Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Plt/Co LFX <sup>1</sup>	A131	300	1	0
Sqd/Plt/Co FTX/STX	A111	200	2	1
EXEVAL (ARTEP) <sup>1</sup>	A111	200	1	0.5
<b>Total Rounds For Collective Training</b>				
Mix	A131		300	0
Blank	A111		600	300

Notes:  
<sup>1</sup> Indicates Standard.

(5) *M203*. table 8–18 lists collective training resourcing for Soldiers assigned a Military Police Unit.

**Table 8–18**  
**M203 GL Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Sqd/Plt LFX <sup>1</sup>	B519	4	1	0

Notes:  
<sup>1</sup> Indicates Standard.



(6) *M2 .50 Cal MG.* table 8–19 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8–19**

**M2 Collective Training**

Event	DODIC	Rounds	Freq	
			AC	RC
Plt/Co LFX <sup>1</sup>	A557	100	1	0
Sqd/Plt/Co FTX/STX	A598	100	1	1
EXEVAL <sup>1</sup>	A598	100	1	0.5
<b>Total</b>				
Mix	A557		100	0
Blank	A598		200	150

Notes:

<sup>1</sup> Indicates Standard.

(7) *MK–19 GMG.* table 8–20 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8–20**

**MK–19 GMG Collective Training**

Event	DODIC	Freq	
		AC	RC
Plt/Co LFX <sup>1</sup>	30	1	0
TP	B584	30	0

Notes:

<sup>1</sup> Indicates Standard.

(8) *Claymore Mine.* table 8–21 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8–21**

**Claymore Collective Training**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Sqd/Plt/Co FTX/STX	Inert	J007	N/A	1	1
EXEVAL <sup>1</sup>	Inert	J007	N/A	1	1
LFX Per Plt <sup>1</sup>	M18A1/A2	K143	1	1	0
Claymore Mines Per Sqd					
Claymore Mines Per Plt				1	0

Notes:

<sup>1</sup> Indicates Standard.

(9) *Hand Grenade.* table 8–22 lists collective training resourcing for Soldiers assigned a Military Police Unit.

**Table 8–22**  
**Hand Grenade Collective Training**

Event	Type	DODIC	Rounds	Freq	
				AC	RC
Sqd/Plt LFX <sup>1,2</sup>	Fuze	G878	6	1	0
Plt/Co LFX <sup>1,2</sup>	Fuze	G878	6	0	0
EXEVAL <sup>1</sup>	Fuze	G878	1	1	0.5
<b>Total For Collective Training</b>		<b>G878</b>	<b>M228 per squad</b>	<b>6</b>	<b>6</b>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> LFX utilizes inert hand grenade body & M228 fuze.

(10) *M136 (AT–4)*. table 8–23 lists collective training resourcing for Soldiers assigned to a Military Police Unit.

**Table 8–23**  
**AT–4 Collective Training**

Event <sup>2</sup>	DODIC	ATWESS	M136	Freq	
				AC	NG/USAR
Sqd/Plt/Co FTX		6		2	0
EXEVAL (ARTEP) <sup>1</sup>		6		1	0
Live Rocket			1	0	0
ATWESS	L367			18	0
M136 per squad					

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Only 3 Soldiers per Infantry squad and 10 percent of E–5s and below for "All Others" are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for Soldiers qualified on the AT–4.

(11) CS Chamber Strategy (See table 8–24)

(12) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(13) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 8–24**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

(14) Pyrotechnics Rollup. table 8–25 list the Battalion and Company Ammunition.

**Table 8–25**  
**Pyrotechnics Bn/Co Rollup<sup>2, 3</sup>**

Munitions	DODIC	Active		Reserve	
		Bn	SEP Co	Bn	SEP Co
HG Smk HC	G982	32	4	18	7
HG Smk GRN	G940	7	2	4	2
HG Smk YEL	G945	18	4	10	4
HG Smk RED	G950	22	8	12	8
HG Smk VIOL	G955	14	4	8	4
Gren Smk CS	G963	14	4	8	4
Smk Pot Floating M4A2	K511	14	4	8	4
Sig Illum GRN Para	L305	4	1	2	1
Sig Illum RED Para	L306	14	4	8	4
Sig Illum WH Para	L307	14	4	8	4
Sig Illum RED Star	L311	4	1	2	1
Sig Illum WH Star	L312	14	4	8	4
Sig Illum GRN Star	L314	14	4	8	4
Flare Surface Trip	L495	18	4	10	3
Sim Proj Grnd Burst	L594	39	9	22	5
Sim Proj Air Burst Liq (SPAL), M9 w/20 simulators <sup>1</sup>	L595	2 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>
Sim Boobytrap Flash	L598	18	7	10	4
Sim Boobytrap Illum	L599	14	4	8	3
Sim Boobytrap Whis	L600	18	4	8	3
Sim HG	L601	36	8	20	4

Notes:

<sup>1</sup> Denotes one kit of 20 simulators.

<sup>2</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit Commanders may desire to use more or less pyrotechnics for a particular exercise that what is suggested.

<sup>3</sup> OPOR requirements are included in the above table.

## 8–9. Special Reaction Team (SRT)

The following standards are given for Special Reaction Teams (SRT). The recommended training strategies and ammunition resources apply to weapons assigned to the designated teams. On certain weapon systems the Marksman Observer (MO) will be required to fire at a higher frequency than the rest of the SRT team members.

*a. M9 Automatic Pistol Standard.* (See table 8–26) Ninety percent of all members assigned the M9 will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) in FM 3–23.35 every three months. Individual requirements consist of qualifying on the MP firearms qualification course (FM 3–23.35), firing the Military Police night firearms sustainment course and completion of the advance marksmanship exercises every three months. Additionally each member will complete firing in MOPP 4 to standard every six months.

**Table 8–26**  
**M9 Qualification (FM 3–23–35)**

Event	Type	DODIC <sup>2</sup>	Rounds	SRT
Preliminary Marksmanship Training	TADSS		4	
Instructional Fire	Ball	AA49	50	4
MPFQC Qualification (FM 19–10) <sup>1</sup>	Ball	AA49	50	4
MP Night Fire Sustainment Course <sup>1,3</sup>	Ball/EST	AA49	20/0	4/0
Advance Marksmanship <sup>1</sup>	Ball	AA49	100	8
NBC Fire <sup>1,3</sup>	Ball	AA49	20	2
<b>Total Rounds for Qualification</b>				
Ball	AA49			
EST				

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> OCONUS units will request DODIC A363 in lieu of AA49.

<sup>3</sup> Installation equipped with EST will conduct NBC & Night Fire on EST.

*b. M16/M4 SRT Standard:* Ninety percent of the members assigned a M16/M4 will have met the individual requirements to standard by conducting; zero, practice, and record fire once every three months. Individual requirements consist of qualifying on the day record fire course (FM 3–19.11) every three months, and firing in MOPP–4 to standard every six months. The designated marksman and observer will conduct zero, practice, and record fire six times per year. Additionally all members will conduct advanced marksmanship training eight times per year.(See table 8–27)

**Table 8–27**  
**M16/M4 Qualification (FM 3–19.11)**

Event	Type	DODIC <sup>2</sup>	Rounds	SRT	M/O
<b>Phase I</b>					
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Phase II</b>					
Iron Sight Zero <sup>1</sup>	Ball	AA33/A063	18	4	6
<b>Subtotal</b>	Ball	AA33/A063		72	108
<b>Iron Sight Qualification</b>					
<b>Phase III</b>					
Iron Sight Practice Record	Ball	AA33/A063	40	4	6
Iron Sight Record <sup>1</sup>	Ball	AA33/A063	40	4	6
NBC Practice	Ball/EST	AA33/A063	20/0	2	2
NBC Record <sup>1</sup>	Ball/EST	AA33/A063	20/0	2	2
Unassisted Night Practice	Ball/EST	AA33/A063	20/10	2	2
Unassisted Night Record <sup>1</sup>	Ball/EST	AA33/A063	20/10	2	2
<b>Subtotal with EST</b>	Ball/Tracer	AA33/A063		320/0	480/0
<b>Subtotal without EST</b>	Ball/Tracer	AA33/A063		480/20	640/20
<b>CCO Qualification</b>					
<b>Phase IV</b>					
CCO Zero <sup>1,3</sup>	Ball	AA33	18	2	4
CCO Practice	Ball	AA33	40	2	4
CCO Record <sup>1,3</sup>	Ball	AA33	40	2	4
<b>Subtotal For CCO</b>	Ball	AA33		196	392

**Table 8–27**  
**M16/M4 Qualification (FM 3–19.11)—Continued**

TWS Qualification					
TWS Zero (WFOV & NFOV) <sup>1,3</sup>	Ball	AA33	36	2	4
TWS Night Field Fire I	Ball	AA33	36	2	4
TWS Practice	Ball	AA33	40	2	4
TWS Record <sup>1,3</sup>	Ball	AA33	40	2	4
<b>Subtotal For TWS</b>	Ball	AA33		304	608
IR Qualification					
IR Zero <sup>1,3</sup>	Ball	AA33	18	2	4
IR Night Field Fire I	Ball	AA33	36	2	4
IR Practice	Ball	AA33	40	2	4
IR Record <sup>1,3</sup>	Ball	AA33	40	2	4
<b>Subtotal For IR</b>	Ball	AA33		268	536
Collective Training					
Sqd/Plt/Co FTX / STX	Blank	A080	40	1	0
<b>Subtotal For Collective</b>				40	0
Total Rounds For Qualification					
Iron Sight Qualification w/o EST mix	Ball/Tracer	AA33/A063		552/20	748/20
Iron Sight Qualification with EST	Ball/Tracer	AA33/A063		392/0	588/0
CCO Qualification	Ball	AA33		196	392
TWS Qualification	Ball	AA33		304	608
IR Qualification	Ball	AA33		268	536
Advanced Marksmanship	Ball	A059	100	800	800
Collective Training Blank	Blank	A080		40	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

<sup>3</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

*c. M203 GL SRT Standard.* Ninety percent of members assigned a M203 GL will have met the individual requirements to standard (FM 3–22.31) by conducting zero and record fire each three months. The Marksman and Observers will conduct zero and record fire every two months.(See table 8–28)

**Table 8–28**  
**M203 Qualification (FM 3–22.31)**

Event	Type	DODIC <sup>2</sup>	Rounds	SRT	M/O
Day Zero <sup>1</sup>	TP	B519	6	4	6
Day Qualification <sup>1</sup>	TP	B519	15	4	6
Total Rounds for Qualification					
Day Qualification	TP	B519		84	126

Notes:

<sup>1</sup> Indicates Standard.

d. *M21/24 Sniper Rifle SRT Standard:* (See table 8–29) Ninety percent of all designated Marksman assigned a M21/M24 sniper rifle will zero with iron and optic sight monthly, and fire the SRT qualification, and night fire every two months. Additionally each marksman/observer will successfully complete a FTX/STX every three months.

**Table 8–29**  
**M21/24 Sniper Rifle SRT (FM 23–10)**

Event	Type	DODIC	Rounds	SRT	M/O
Preliminary Marksmanship Training	TADSS		12		
Zero					
Iron Sights <sup>1</sup>	Ball	AA11	18	12	
M3A Scope <sup>1</sup>	Ball	AA11	18	12	
AN/PVS–10 DNS <sup>1</sup>	Ball	AA11	18	12	
Sustainment					
Iron Sights	Ball	AA11	45	6	
M3A Scope	Ball	AA11	45	6	
AN/PVS–10 DNS	Ball	AA11	45	6	
Qualification					
Iron Sights <sup>1</sup>	Ball	AA11	50	6	
M3A Scope <sup>1</sup>	Ball	AA11	50	6	
AN/PVS–10 DNS <sup>1</sup>	Ball	AA11	100	6	
Total Rounds for Qualification					
Ball	Ball	AA11		2658	
Blank for FTX/STX	Blank	A112		10	4

Notes:

<sup>1</sup> Indicates Standard.

e. *M1200 Shotgun SRT Standard:* (See table 8–30) all members will have met the individual qualification requirements to standard four times per year. Individual requirements consist of qualifying on the Military Police 12–Gauge Shotgun Qualification Course (FM 19–10 and STP 19–95C14–SM–TG). Additionally members will also conduct SRT advanced marksmanship training and instructional fire eight times per year. Each SRT team is allocated eight rounds of M1030 12 Gauge Breaching Round per month at a frequency of twelve times per year to provide effective training for SRT teams during missions involving defeating door locking mechanisms.

**Table 8–30**  
**M1200 Qualification (FM 19–10 and STP 19–95C14–SM–TG)**

					Freq
Event	Type	DODIC	Rounds	SRT	ADV MK
Preliminary Marksmanship Training	TADSS		4	8	
Instructional Fire	Buckshot	A011	3	4	8
Qualification Fire <sup>1</sup>	Buckshot	A011	10	4	8
Defeat Door Locking Mechanisms	Breaching	AA54	8	0	12
Total Rounds for Qualification					
Buckshot	Buckshot	A011		52	104
12 Gauge Breaching Round	M1030	AA54		0	96

Notes:

<sup>1</sup> Indicates Standard.

*f. H&K MP5 SMG SRT Standard.* Ninety percent of the members will have met the individual requirements to standard (SRT TC) within the last 3 months. Individual requirements consist of instructional fire and record fire qualification 4 times per year, and advanced marksmanship training 8 times per year. Individual requirements consist of qualifying on the Special Reaction Team MP5 Qualification Course in accordance with FM 3–19.11.(See table 8–31)

**Table 8–31**  
**H & K MP5**

Event	Type	DODIC	Rounds	Freq	
				SRT	ADV MK
Qualification <sup>1</sup>	Ball	A363	50	4	0
Advanced Marksmanship	Ball	A363	100	0	8
<b>Total Rounds for Qualification</b>					
	Ball	A363		200	800

Notes:

<sup>1</sup> Indicates Standard.

*g. M84 Stun Grenade SRT Standard.* Ninety percent of all members will have met individual standards with the stun grenade by deploying the device 8 times a year during team FTX (building clearing operations).(See table 8–32)

**Table 8–32**  
**M84 Stun Grenade**

Event	Type	DODIC	Rounds	Freq
Advanced Marksmanship	Body	GG18	1	1 <sup>1</sup>
	Fuse	GG19	1	8

Notes:

<sup>1</sup> Each member receives 1 Body (GG18) per year to facilitate the deployment of 8 Fuses (GG19).

*h. Special Effects Small Arms Marking Systems (SESAMS) SRT Standard:* All members assigned to an active Military Police SRT team assigned the 9mm, M4 or M16, and MP5 weapons will be authorized 10 rounds per weapon 12 times per year for training purposes. Additionally members will be qualified with individual weapons prior to selection as a SRT team member. (See table 8–33)

**Table 8–33**  
**Special Effects Small Arms Marking System (SESAMS) <sup>1</sup>**

Weapons	Type	DODIC	Rounds	SRT Freq
9mm	MMR Red/ Blue	AS04/ AS05	10	12
M16/M4	MMR Red/ Blue	AB09/AB10	10	12
MP5	MMR Red/ Blue	AS04/ AS05	10	12
<b>Total Rounds</b>				
	MMR Red/ Blue	AS04/ AS05	120	
	MMR Red/ Blue	AB09/AB10	120	
	MMR Red/ Blue	AS04/ AS05	120	

Notes:

<sup>1</sup> This is a marking round used for training only.

## 8–10. Criminal Investigation Division.

The individual and collective training standards for Criminal Investigation Division (CID) Soldiers are found in 8–2 of this chapter unless other wise listed below.

*a. M9 Automatic Pistol Standard.* Ninety percent of special agents will meet the individual qualification requirements for the 9mm pistol to standard every three months. Individual requirements consist of qualifying with the pistol on the CID special agent qualification course in accordance with CID Reg. 195–1. CID agents will also fire the MP Night Firearms Course every 12 months. CID agents assigned to protective service units will conduct stress drills monthly.(See table 8–34)

**Table 8–34**  
**Special Agent Qualification Course (CID REG 195–1)**

Event	Type	DODIC <sup>2</sup>	Rounds	CID Freq.
Preliminary Marksmanship Training	TADSS		4	
Instructional Fire	Ball	AA49	72	4
Special Agent Qualification Course <sup>1</sup>	Ball	AA49	72	4
SAQC Night Firearms Sustainment Course <sup>1,3</sup>	Ball/EST	AA49	60/0	1
Stress Drills <sup>1</sup>	Ball	AA49	25	12
<b>Total Rounds for Qualification</b>				
	Ball	AA49	936	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> OCONUS units will request DODIC A363 in lieu of AA49.

<sup>3</sup> Units equipped with EST will conduct NBC & Night Fire on EST.

*b. H&K MP5 SMG SRT Standard:* Each CID agent assigned to a protective services unit will qualify each quarter with the SMG, IAM table 8–35 and CID Reg 195–1.

**Table 8–35**  
**H & K MP5 (CIDR 195–19)**

Event	Type	DODIC	Rounds	Freq
Qualification <sup>1</sup>	Ball	A363	50	4
Stress Drills	Ball	A363	25	12
<b>Total Rounds per Firer</b>				
	Ball	A363	500	

Notes:

<sup>1</sup> Indicates Standard.

## Chapter 9

### Combat Support and Combat Service Support (CS/CSS) Weapon Systems

#### 9–1. Description

*a.* This chapter provides weapons qualification standards, collective training and resource authorizations for CS/CSS units. Paragraph 9–5 outlines individual weapons training requirements and qualification programs for Active Army, U.S. Army Reserve (USAR) and Army National Guard (ARNG) CS/CSS units. Paragraph 9–6 outlines CS/CSS proponent strategies. Paragraph 9–7 identifies additional munitions qualification standards for chemical units. Paragraph 9–8 identifies additional munitions qualification standards for Explosive Ordnance Disposal (EOD) units. Paragraph 9–9 identifies additional munitions qualification standards for Ordnance (Ammunition) units.

*b.* The objective of the weapons training programs is to provide the unit commander models for attaining and sustaining weapon proficiency throughout the training year. Proficiency is achieved through the use of dry-fire exercises; training aids, devices, simulators and simulations (TADSS); and live-fire exercises (LFX).



## 9-2. Individual Weapons Training, Requirements and Qualification

This section contains TADSS information, weapons qualification, and collective training and resource requirements for Active Army, USAR, and ARNG CS/CSS units. Individual weapons qualification requirements contain two strategies; one for units equipped with the Engagement Skills Trainer 2000 (EST-2000) and one for units without the EST 2000. Active Components (AC) table of distribution and allowances (TDA) units with personnel assigned individual weapons will qualify every six months. Reserve Components (RC) personnel assigned individual weapons will qualify every 12 months. Consult the appropriate section of this chapter to determine authorized resourcing for qualification. Personnel in any TDA unit who are not assigned individual weapons are exempt from weapon qualification.

## 9-3. TADSS

A realistic approach to training that includes live fire and TADSS are needed to fully prepare soldiers. Commanders must integrate TADSS into the training strategies to train critical events that are not resourced. Individual and crew served weapons TADSS information are contained in Appendix B.

## 9-4. Non-Infantry Urban Operations (UO) Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for non-Infantry units. This training strategy identifies the training ammunition resources required to conduct UO training. This is an optional training event based on a commander's Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. The UO Training Strategy information is contained in Appendix C.

## 9-5. Individual Weapons Qualification Requirements

a. *M9 Automatic Pistol Standard. (See table 9-1)*

(1) Ninety percent of Soldiers assigned the M9 will meet the qualification standards of the Combat Pistol Qualification Course (CPQC) in FM 3-23.35 within the past six months. Outside the Continental United States (OCONUS) units will request DODIC A363 in lieu of DODIC AA49.

(2) Eighty percent of ARNG and USAR assigned the M9 will meet the qualification standards of the CPQC in FM 3-23.35 every 12 months.

**Table 9-1**  
**M9 Pistol Qualification (FM 3-23.35)**

Event	Type	DODIC	Rounds	Freq	
				AC	ARNG /USAR
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	7	2	1
CPQC table VII Night Fire <sup>1,2</sup>	Ball/EST	AA49	5	2	1
<b>Total Rounds for Qualification</b>					
Non EST Equipped Units	Ball	AA49		184	92
EST Equipped Units	Ball	AA49		160	80

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations equipped with EST 2000 will conduct M9 Night and NBC qualification on the EST 2000.

b. *M16 Rifle/M4 Carbine Standard. (See table 9-2)*

(1) Primary and secondary day sight: The primary sight is either the close-combat optics (CCO)/Advanced Combat Optical Gunsight (ACOG) or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight.

(2) Day Requirements without EST 2000: Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of ARNG and USAR Soldiers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 every 12 months for the events listed below. The ARNG and USAR will alternate primary and secondary

sight qualification every year, if equipped. OCONUS units will request A059 ball in lieu of AA33; if lead-free is required request AA45.

(4) Iron sight/Back up iron sight (BIS): All Soldiers will qualify on the day and Nuclear, Biological and Chemical (NBC) record course.

(5) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(6) Day Requirements with EST 2000:

(a) Iron Sight/Back up iron sight (BIS): All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(7) Night requirements for Thermal weapon sight (TWS) and Infrared aiming light: Soldiers will qualify on the night transition record course with each Night Vision Device (NVD) assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 9–2**  
**M16/M4 Qualification (FM 3–22.9)**

DODIC <sup>3</sup>				Freq	
Event	Type	AA33	A063	AC	ARNG/ USAR
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	EST/LMTS			4	2
Iron Sight Zero <sup>1</sup>	Ball	18		2	1
Iron Sight Practice Record	Ball	40		2	1
Iron Sight Record <sup>1</sup>	Ball	40		2	1
Subtotal				196	98
Close Combat Optic (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	EST/LMTS			4	2
Zero (CCO) <sup>1</sup>	Ball	18		2	1
Practice (CCO)	Ball	40		2	1
Record (CCO) <sup>1</sup>	Ball	40		2	1
Back-Up Iron Sight Zero	Ball	18		1	1
Back-Up Iron Sight Practice Record	Ball	40		1	1
Back-Up Iron Sight Record	Ball	40		1	1
Subtotal				294	196
All Primary Sights					
NBC Practice	Ball or EST	20		2	1
NBC Record <sup>1</sup>	Ball or EST	20		2	1
Unassisted Night Practice	Ball/Tracer or EST	20	10	2	1
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2	1
Subtotal (AA33/A063)					
Units not equipped with EST				160/40	80/20
Units equipped with EST				0/0	0/0
Thermal Weapon Sight <sup>2</sup>					
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36		2	1
Night Field Fire I	Ball	36		2	1
Practice Record	Ball	40		2	1
Record <sup>1</sup>	Ball	40		2	1
Subtotal				304	152

**Table 9–2**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

Infrared <sup>2</sup>				
IR Zero <sup>1</sup>	Ball	18	2	1
IR Night Field Fire I	Ball	36	2	1
IR Practice Record	Ball	40	2	1
IR Record <sup>1</sup>	Ball	40	2	1
<b>Subtotal</b>			<b>268</b>	<b>134</b>
Total Rounds				
AC w/o EST/w/ EST		ARNG/USAR w/o EST/w/ EST		
	AA33	A063	AA33	A063
Iron Sight Only Qual	356/196	40/0	178/98	20/0
CCO & BIS Qual	454/294	40/0	276/196	20/0
Thermal Weapon Sight	304/304	0/0	152/152	0/0
Infrared	268/268	0/0	134/134	0/0
Collective Training				
			Freq	
	DODIC	Rounds	AC	ARNG/USAR
Sqd/Plt/Co STX/FTX	A080	40	2	1
EXEVAL	A080	40	1	0.5
Sqd/Plt LFX	A059/A063	130/20	1	0

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCOUNUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

*c. M203 Grenade Launcher (GL) Standard. (See table 9–3)*

(1) Ninety percent of the active Army Soldiers assigned an M203 GL will zero and meet the day qualification standards in FM 3–22.31 within the past six months.

(2) Eighty percent of ARNG and USAR Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every 12 months.

**Table 9–3**  
**M203 GL Qualification (FM 3–22.31)**

					Freq
Event	DODIC	Type	Rounds	AC	ARNG/USAR
Day Zero <sup>1</sup>	B519	TP	6	2	1
Day Qualification <sup>1</sup>	B519	TP	15	2	1
Total Rounds for Qualification					
Day Qualification					
	B519	TP		42	21
Collective Training					
Sqd/Plt LFX	B519	TP	4	1	0

Notes:

<sup>1</sup> Indicates Standard.

*d. M249 Light Machine Gun (LMG) Standard. (See table 9–4)*

(1) Primary and secondary day sight: The primary sight is the Machine gun optic (MGO) or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of active Army Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of ARNG and USAR assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The USAR and ARNG will alternate primary and secondary sight qualification every year if equipped.

(4) Day requirements without EST 2000: All Soldiers will qualify on the 10-meter and day transition record course. Day requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night Requirements for TWS and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

*e. M60 Machine Gun/M240B Machine Gun Standard.*

(1) Primary and secondary day sight: The primary sight is the MGO or Iron Sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight. Standards in Training Commission allocates a 5 to 7 round burst for the M240. FM 3–22.68 lists a 7 to 9 rounds burst. Qualification must be conducted using a 5 to 7 round burst. Refer to table 3–4 for ammunition allocation.

(2) Ninety percent of Soldiers assigned the M60/M240B will zero and meet the day and night qualification standards in FM 3–22.68 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of ARNG and USAR Soldiers assigned the M240B will zero and meet the day and night qualification standards in FM 3–22.68 every 12 months. The ARNG and USAR will alternate primary and secondary sight qualification every year if equipped.

(4) Day requirements without EST 2000: Iron sight: All Soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(5) Night requirements for TWS and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 9–4**  
**M60/M240B/M249 LMG Qualification (FM 3–22.68)<sup>2</sup>**

Event	Type	DODIC			Freq	
		A143/A062	A131/A064	AC w/o MGO	AC w/MGO	ARNG/USAR
Preliminary Marksmanship Training	TADSS			4		4
<b>Iron Sight Qualification</b>						
<b>Firing table I</b>						
10m Zero For Bipod & Tripod <sup>1</sup>	Ball/EST	24	~	2	3	1
10m Practice	Ball/EST	161	~	2	3	1
10m Record <sup>1</sup>	Ball/EST	91	~	2	3	1
<b>Subtotal with EST</b>	<b>Ball</b>			<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal without EST</b>	<b>Ball</b>			<b>552</b>	<b>828</b>	<b>276</b>
<b>Firing table II</b>						
Transition Zero <sup>1</sup>	Mix	~	28	2	3	1
Transition Practice	Mix	~	154	2	3	1
Transition Record <sup>1</sup>	Mix	~	154	2	3	1
<b>Subtotal</b>	<b>Mix</b>			<b>672</b>	<b>1008</b>	<b>336</b>

**Table 9–4**  
**M60/M240B/M249 LMG Qualification (FM 3–22.68)<sup>2</sup>—Continued**

TWS Qualification					
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	~	36	2	1
TWS Night Field Fire III	Mix	~	154	2	1
TWS Limited Visibility Practice	Mix	~	154	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	~	154	2	1
<b>Subtotal</b>				<b>996</b>	<b>498</b>
IR Qualification					
IR Zero <sup>1</sup>	Mix	~	18	2	1
IR Night Field Fire III	Mix	~	154	2	1
IR Practice	Mix	~	154	2	1
IR Qualification <sup>1</sup>	Mix	~	154	2	1
<b>Subtotal</b>	<b>Mix</b>			<b>960</b>	<b>480</b>
Total Rounds					
			AC		ARNG/USAR
			DODIC		
			A143/A062	A131/A064	A143/A062 A131/A064
Primary Sight Qualification w/ EST			0	672	0 336
Primary Sight Qualification wo/EST			552	672	276 336
MGO & Iron Sight Qual wo/ EST			828	1008	
MGO & Iron Sight Qual w/ EST			0	1008	
TWS Qualification			0	996	0 498
IR Qualification			0	960	0 480
Collective Training					
		DODIC	Rounds	AC	ARNG/ USAR
Plt/Co LFX		A131/A064	300	1	0
Sqd/Plt/Co FTX/STX		A111/A075	200	2	1
EXEVAL		A111/A075	200	1	0.5 <sup>3</sup>
Notes:					
<sup>1</sup> Indicates Standard.					
<sup>2</sup> Note Refer to Para 9–5.					
<sup>3</sup> 0.5 Indicates once every two years					

*f. M249 AR Standard.* (See table 9–5)

(1) Primary and secondary day sight: The primary sight is the MGO or iron sight. If equipped with the MGO, that is the primary sight and the iron sight is the secondary sight. If not equipped with the MGO, the iron sight is the primary sight.

(2) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and if equipped with night vision devices, conduct night qualification in accordance with with TC 23–AIMSS (Advanced Infantry Marksmanship Strategies and Standards) within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(3) Eighty percent of ARNG and USAR assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in TC 23–AIMSS every 12 months. The ARNG and USAR will alternate primary and secondary sight qualification every year if equipped. Day requirements without EST 2000: Iron

sight; all Soldiers will qualify on the 10-meter and day transition record course. Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(4) Night requirements for TWS and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 9–5**  
**M249AR Qualification (FM 3–22.68)<sup>2</sup>**

DODIC				Freq	
Event	Type	A062	A064	AC	ARNG/ USAR
Iron Sight (Primary Sight)					
Preliminary Marksmanship Training	TADSS			4	4
Firing table I					
10m Zero <sup>1</sup>	Ball or EST	6		2	1
10m Practice	Ball or EST	51		2	1
10m Record <sup>1</sup>	Ball or EST	51		2	1
Firing table II					
Transition Zero <sup>1</sup>	Mix		12	2	1
Transition Practice	Mix		66	2	1
Transition Record <sup>1</sup>	Mix		66	2	1
Subtotal (A062/A064)					
Units not equipped with EST				216/288	108/144
Units equipped with EST				0/288	0/144
MGO (Primary Sight) <sup>2</sup>					
Preliminary Marksmanship Training	TADSS			4	N/A
Firing table I					
10m Zero (MGO) <sup>1</sup>	Ball or EST	6		2	N/A
10m Practice (MGO)	Ball or EST	51		2	N/A
10m Record (MGO) <sup>1</sup>	Ball or EST	51		2	N/A
Iron Sight 10m Zero	Ball or EST	6		1	N/A
Iron Sight 10m Practice	Ball or EST	51		1	N/A
Iron Sight 10m Record	Ball or EST	51		1	N/A
Firing table II					
Transition Zero (MGO) <sup>1</sup>	Mix		12	2	N/A
Transition Practice (MGO)	Mix		66	2	N/A
Transition Record (MGO) <sup>1</sup>	Mix		66	2	N/A
Iron Sight Transition Zero	Mix		12	1	N/A
Iron Sight Transition Practice	Mix		66	1	N/A
Iron Sight Transition Record	Mix		66	1	N/A
Subtotal (A062/A064)					
Units not equipped with EST				324/432	N/A
Units equipped with EST				0/432	N/A
Firing table III TC 23–AIMSS					
TWS <sup>2</sup>					
TWS Zero (WFOV & NFOV) <sup>1</sup>	Mix		36	2	1

**Table 9-5**  
**M249AR Qualification (FM 3-22.68)<sup>2</sup>—Continued**

TWS Night Field Fire III	Mix	66	2	1
TWS Limited Visibility Practice	Mix	66	2	1
TWS Limited Visibility Qualification <sup>1</sup>	Mix	66	2	1
<b>Subtotal</b>			468	234
<b>Infrared<sup>2</sup></b>				
IR Zero <sup>1</sup>	Mix	18	2	1
IR Night Field Fire III	Mix	66	2	1
IR Practice	Mix	66	2	1
IR Qualification <sup>1</sup>	Mix	66	2	1
<b>Subtotal</b>			432	216
<div> <div>Total Rounds AC w/o EST/w/ EST</div> <div>ARNG/USAR w/o EST/w/ EST</div> </div>				
	<b>A062</b>	<b>A064</b>	<b>A062</b>	<b>A064</b>
Iron Sight Only	216/0	288/288	108/0	144/144
MGO & Iron Sight	324/0	432/432	N/A	N/A
Thermal Weapon Sight	0/0	468/468	0/0	234/234
Infrared	0/0	432/432	0/0	216/216
<b>Collective Training</b>				
	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>Freq ARNG/USAR</b>
Sqd/Plt/Co STX/FTX	A075	300	2	1
EXEVAL	A075	300	1	0.5 <sup>3</sup>
Sqd/Plt LFX	A064	300	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Refer to Para 9-5.

<sup>3</sup> 0.5 Indicates once every two years.

*g. M2 .50 Caliber Machine Gun (MG) Standard. (See table 9-6)*

(1) Ninety percent of Soldiers assigned the M2 .50 caliber MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 23-65 within the past six months.

(2) Eighty percent of ARNG and USAR Soldiers assigned the M2 .50 cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 23-65 every 12 months. Day requirements: Qualify on the Day Qualification table II. Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned, AN/PEQ-2A, AN/PAS-13 HTWS.

**Table 9-6**  
**M2 .50 Cal MG Qualification (FM 23-65)**

				<b>Freq</b>	
<b>Event</b>	<b>Type</b>	<b>DODIC</b>	<b>Rounds</b>	<b>AC</b>	<b>ARNG/ USAR</b>
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Day Qualification</b>					
table I Day Zero/Practice	Mix	A557	140	2	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2	1
<b>Subtotal</b>				<b>560</b>	<b>280</b>
<b>Night Qualification</b>					

**Table 9–6**  
**M2 .50 Cal MG Qualification (FM 23–65)—Continued**

AN/PEQ–2A					
Night Zero <sup>1</sup>	Mix	A557	26	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>				<b>556</b>	<b>278</b>
AN/PAS–13 HTWS					
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2	1
table III Night Practice	Mix	A557	126	2	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2	1
<b>Subtotal</b>				<b>576</b>	<b>288</b>
Total Rounds for Qualification					
Day Qualification					
table I & II	Mix	A557		560	280
Night Qualification					
AN/PEQ–2A Qualification	Mix	A557		556	278
AN/PAS–13 HTWS Qualification	Mix	A557		576	288
Collective Training					
Sqd/Plt/Co STX/FTX		A598	100	2	1
EXEVAL		A598	100	1	0.5 <sup>2</sup>
Sqd/Plt LFX		A557	100	1	0
Notes:					
<sup>1</sup> Indicates Standard.					
<sup>2</sup> 0.5 Indicates once every two years.					

*h. MK–19 Grenade Machine Gun (GMG) Standard. (See table 9–7)*

(1) Ninety percent of Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 within the past six months. The MK–19 GMG table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized. Consult FM 3–22.27 to determine which table to utilize and number of rounds to request.

(2) Eighty percent of ARNG and USAR Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in Chapter 4 of FM 3–22.27 every 12 months. Day requirements: Qualify on Day Qualification table II. Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned, AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 9–7**  
**MK–19 GMG Qualification (FM 3–22.27)**

Event	Type	Rounds	Freq	
			AC	NG/USAR
Preliminary Marksmanship Training		TADSS	4	4
Day Qualification				
table I Day Practice	TP–T	62	2	1
table II Day Qualification <sup>1</sup>	TP–T	62	2	1
Night Qualification				
AN/PEQ–2A				
table III Night Practice	TP–T	62	2	1



**Table 9-7**  
**MK-19 GMG Qualification (FM 3-22.27)—Continued**

table IV Night Qualification <sup>1</sup>	TP-T	62	2	1
<b>AN/PAS-13</b>				
table III Night Practice	TP-T	62	2	1
table IV Night Qualification <sup>1</sup>	TP-T	62	2	1
<b>Total Rounds for Qualification</b>				
<b>Day Qualification</b>				
table I & II	B584		248	124
<b>Night Qualification</b>				
AN/PEQ-2A	B584		248	124
AN/PAS-13	B584		248	124
<b>Collective Training</b>				
Sqd/Plt LFX	B584	30	1	0

Notes:

<sup>1</sup> Indicates Standard.

*i. M1200 Shotgun Standard. (See table 9-8)*

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard within the past six months. Individual requirements consist of those task identified in STP 19-95C1-SM.

(2) Eighty percent of ARNG and USAR Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 9-8**  
**M1200 Qualification (STP 19-95C1-SM)**

Event	DODIC	Type	Rounds	Freq	
				AC	ARNG/USAR
Preliminary Marksmanship Training		TADSS	0	4	4
Instructional Fire	A011	Buckshot	3	2	1
Qualification Fire <sup>1</sup>	A011		10	2	1
<b>Total Rounds for Qualification</b>	A011	Buckshot		26	13

Notes:

<sup>1</sup> Indicates Standard.

*j. Hand Grenade Standard. (See table 9-9)*

(1) Live grenade throw is not required for qualification. Mock Bay training is required for the live hand grenade throw in accordance with FM 3-23.30.

(2) CS/CSS: Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 and throw a live grenade within the past 12 months.

(3) ARNG Infantry; Soldiers will qualify on the HGQC in accordance with FM 3-23.30 within the past training year and throw a live grenade once every two training years.

**Table 9–9**  
**Hand Grenade (FM 3–23.30)**

				Freq
Event	DODIC	Rounds	AC	ARNG/USAR
Qualification				
Mock Bay		2	0.5 <sup>2</sup>	0.5 <sup>2</sup>
Hand Grenade Qualification Course <sup>1</sup>	G878	6	1	1
Total For Qualification				
	G878		7	7
Live Grenade Throw	G881		0.5 <sup>2</sup>	0.5 <sup>2</sup>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 Indicates every two years.

*k. M18A1/A2 Claymore Mine. (See table 9–10).*

(1) Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert Claymore mine to standard in accordance with FM 23–23 every 12 months.

(2) ARNG and USAR Soldiers will qualify with the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months.

**Table 9–10**  
**M18 Claymore Mine (FM 23–23)**

Event	Type	Rounds	AC	Freq
				ARNG/USAR
Employment Instruction/Qualification <sup>1</sup>	Inert	N/A	1	1
<b>No rounds required for qualification</b>				

Notes:  
<sup>1</sup> Indicates Standard.

*l. O–Chlorobenzyl Denemalononitrite (CS) Chamber Strategy. (See table 9–11).*

(1) The CS chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a confidence chamber exercise within the past 12 months.

**Table 9–11**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:  
<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.  
<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

*m. Pyrotechnics.* table 9–12 lists the pyrotechnics roll up for a battalion and company for Active Army, ARNG and USAR.

**Table 9–12**  
**Pyrotechnics (Battalion-Company Rollup) <sup>2, 3</sup>**

Nomenclature	DODIC	AC		ARNG/USAR	
		BN	Sep Co	BN	Sep Co
Gren Smk HC	G982	32	7	18	7
Gren Smk GRN	G940	7	2	4	2
Gren Smk YEL	G945	18	4	10	4
Gren Smk RED	G950	22	8	12	8
Gren Smk VIOL	G955	14	4	8	4
Gren Smk CS	G963	14	4	8	4
Smk Pot Floating M4A2	K511	14	4	8	4
Sig Illum GRN Para	L305	4	1	2	1
Sig Illum RED Para	L306	14	4	8	4
Sig Illum WH Para	L307	14	4	8	4
Sig Illum RED Star	L311	4	1	2	1
Sig Illum WH Star	L312	14	4	8	4
Sig Illum GRN Star	L314	14	4	8	4
Flare Surface Trip	L495	18	4	10	3
Sim Proj Grnd Burst	L594	39	9	22	5
Sim Proj Air Burst Liq (SPAL), M9 w/20 simulators <sup>1</sup>	L595	2	1	1	1
Sim Booby trap Flash	L598	18	7	10	4
Sim Booby trap Illum	L599	14	4	8	3
Sim Booby trap Whis	L600	18	4	8	3
Sim Hand Gren	L601	36	8	20	4

Notes:

<sup>1</sup> Denotes one kit of 20 simulators.

<sup>2</sup> The annual requirement represents the pyrotechnic requirements for a training year. Unit commanders may desire to use more or less pyrotechnics for a particular exercise than what is suggested.

<sup>3</sup> OPFOR requirements are included in the above table.

## 9–6. CS/CSS Proponent Strategies (Collective Training)

*a.* Collective training requirements are included in the tables in paragraph 9–5. Ammunition resources are contained in each weapons qualification resourcing table under paragraphs 9–4 and 9–5.

*b.* Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a rehearsal, dry fire and MILES blank fire iteration.

*c. Component Collective Task Training.*

(1) Active duty Soldiers will participate in a Squad/Section/Platoon LFX to standard annually; participate in a squad/section/platoon/company Field Training Exercise/Situational Training Exercise (FTX/STX) annually; participate in an External Evaluation (EXEVAL) to standard annually. Consult appropriate Army Training and Evaluation Program/Mission Training Plan (ARTEP/MTP) manuals for exact standards.

(2) ARNG and USAR.

(a) Soldiers will participate in a squad/section/platoon/company STX/FTX every training year; participate in an EXEVAL to standard once every two training years. Consult appropriate ARTEP/MTP manuals for standards.

(b) Each table will specify the amount of ammunition per weapon for a collective event. The collective event your unit conducts is based on the commander's METL assessment. Blank ammunition is provided to allow for rehearsal/practice training prior to the live fire event.

*d. Live Fire Exercise (LFX).* (See Figure 9–1) Leaders must know the capabilities of their Soldiers and their

weapons. A live fire exercise (LFX) enables leaders to accomplish this assessment under the most realistic conditions. The LFX is an annual training exercise designed to train units on tactics, techniques, and procedures (TTP). The standards of execution and performance measures should be derived from unit collective tasks and battle drills. Examples of collective tasks and battle drills suitable for a LFX within a CS/CSS unit would be to defend the Unit Area, Defend March Elements, and any task that involves a reaction to enemy contact.

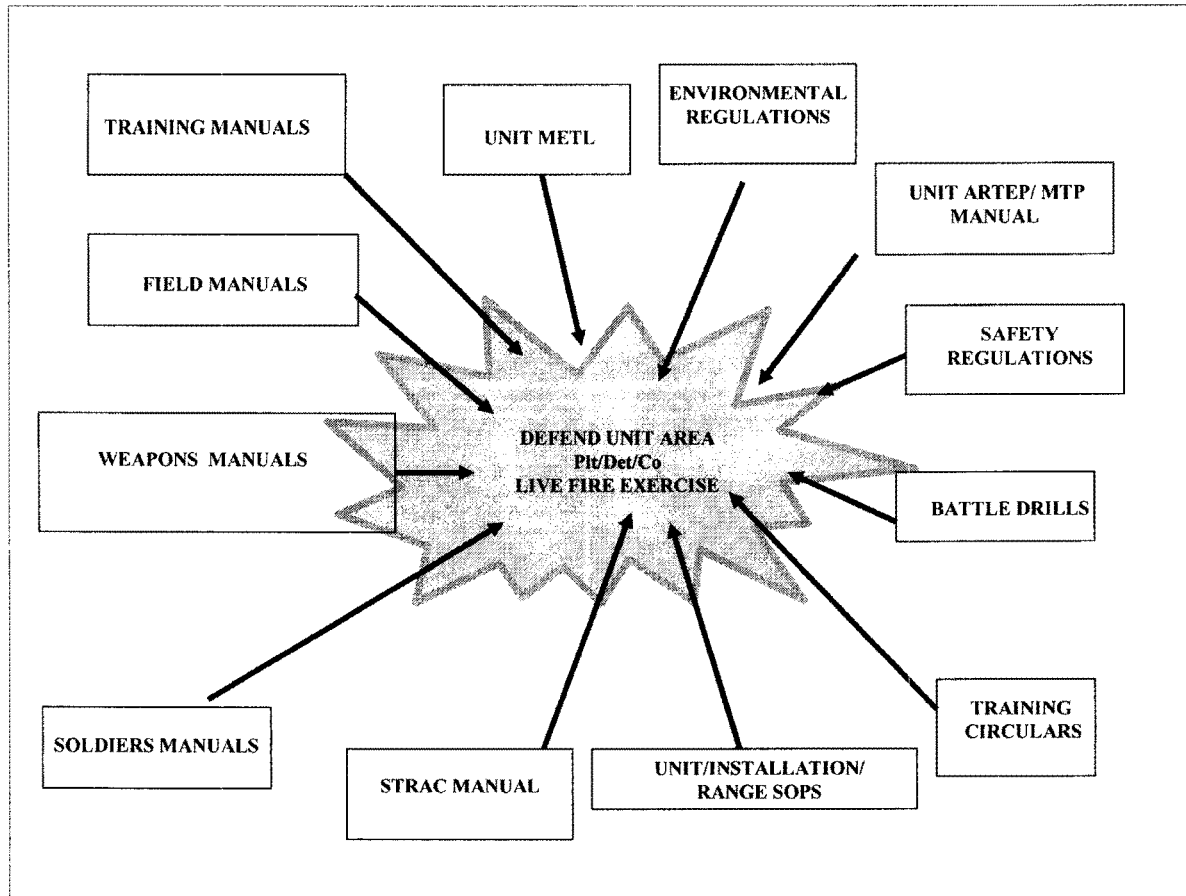


Figure 9-1. LFX Supporting Army Training Doctrine and Literature

- (1) Live fire training should be developed and executed using the following philosophy:
  - (a) The live fire area is “non-standard” -it is not a range. LFXs are executed as tactical tasks in accordance with an Operations Order and the standards within the applicable ARTEP/MTP manual.
  - (b) LFX should be tailored to your units METL based on the commander’s latest METL assessment.
  - (c) The focus of training and execution should be determined by the unit commander.
  - (d) The training should emphasize the employment of organic weapon systems at the unit level. Supporting indirect and combined arms weapon systems should also be incorporated when available.
  - (e) Units should be provided a realistic threat with a target-rich environment. Each Soldier should have the opportunity to employ his weapon. The LFX should tests the ability of the unit’s chain of command to control and distribute fires effectively.
- (2) The LFX should be a culminating exercise of the unit’s marksmanship and collective training programs. Training should be accomplished within graduated echelons beginning with individual weapons qualification; individual and team movement techniques; section/squad level actions; and finally culminating at the platoon/ detachment/unit level.

## 9–7. Chemical Unit Demolition

This section provides standards, training strategies, and resource requirements for the M240G Machine Gun used in the FOX Reconnaissance Vehicle. *M240G (Fox) Training Strategy* recommended strategy is given in table 9–13. Crew members will conduct instructional fire and complete an EXEVAL annually.

**Table 9–13**  
**M240G (Fox) Ammunition/Training Strategy**

Event	DODIC	Type	Rounds	Freq	
				AC	ARNG/ USAR
Preliminary Marksmanship Training		EST	N/A	1	1
Instructional Fire	A131	Mix	400	1	1
STX <sup>1</sup>	A111	Blank	200	4	
EXEVAL (ARTEP)	A111	Blank	200	1	
<b>Total Rounds Per Machine Gun</b>					
	A143	Ball		0	
	A131	Mix		400	
	A111	Blank		1000	

Notes:

<sup>1</sup> Frequency is four per training year.

## 9–8. Explosive Ordnance Disposal (EOD)

This section provides standards, training strategies, and resource requirements for the M82/M107 .50 Caliber Sniper Rifle used by EOD. It also provides training standards and resource authorizations for demolition and render safe procedure (RSP) tools and systems. The following individual tasks should be incorporated into scenario-driven training during periodic situational training exercises or unit FTX.

*a. M82/M107 .50 Caliber Sniper Rifle Ammunition Training Strategy.* (See table 9–14)

(1) Ninety percent of MOS 89D/AOC 89E Soldiers assigned to an EOD company will zero and meet the qualification standards for the iron sight and day optics in accordance with FM 23–10 w/Change 1 and night optics in accordance with TC 23–AIMSS within the past 12 months.

(2) Eighty percent of ARNG MOS 89D/AOC 89E Soldiers assigned to an EOD company will zero and meet the weapon qualification standards for the iron sight and day optics in accordance with FM 23–10 w/Change 1 and night optics in accordance with TC 23–AIMSS within the past 12 months.

(3) The preceding standards have been modified from that required of combat arms soldiers due to the different purpose of the weapon system within EOD. The M82/M107 sniper rifle is not an individually assigned weapon but is one of many tools utilized by EOD teams to dispose of Unexploded Ordnance (UXO). The modified standard is to provide all EOD qualified Soldiers basic marksmanship proficiency to successfully engage stationary UXO targets.

**Table 9–14**  
**M82/M107 .50 Cal Sniper Rifle Qualification (FM 23–10)**

EVENT	DODIC	Type	Rounds	Freq	
				AC	ARNG
Preliminary Marksmanship Training		EST	0		
Zero Iron Sight	A552	Ball	18	1	1
Zero Day Optics	A552	Ball	18	1	1
Iron Sight Qualification	A552	Ball	25	1	1
Day Optic Qualification	A552	Ball	20	1	1
<b>Total Rounds for Qualification</b>					
	A552	Ball		81	81

*b. Demolition Standard. (See table 9–15)*

(1) Ninety percent of the assigned Soldiers with an MOS 89D/AOC 89E Soldier's Manual requirement must have constructed demolition firing systems and primed explosives for live fire to Soldier's Manual standards every six months.

(2) The tasks are:

- (a) Construct Modern Demolition Initiation (MDI) demolition system.
- (b) Construct demolition system with primed detonation cord.
- (c) Construct non-electric initiating/firing demolition system.
- (d) Construct electric initiating/firing demolition system.
- (e) Employ M221 Shaped Charge (semi-annually).

(3) See table 9–15 for demolitions strategy.

**Table 9–15**  
**Demolitions INDIVIDUAL SOLDIER STANDARDS (PER MOS 89D/AOC 89E SOLDIER)**

DEMO PROCEDURES	DODIC	CONST MDI DEMO	PRIME W/ DET CORD	CONST NON ELEC DEMO	CONST ELEC DEMO	EMPLOY M221 SHAPE CHARGE	DEMO TOTAL (AC/ RC)
CHARGE DEMO C–4	M023	3	1	1	1		12\6
CAP ELEC M6	M130				2		4\2
CAP N/E M7	M131		1	2			6\3
CORD DET <sup>1</sup>	M456		100				200\100
HOLDER M9	ML45	3					6\3
CAP BLAST M11	MN69	1					2\1
CAP BLAST M11		1					2\1
CHG, DEMO M221	MM50					1	2\1
CAP BLAST M21	MN88	1					2\1
CAP BLAST M23	MN90	1					2\1
CAP BLAST M14	MN06	1	2			2	10\5
CAP BLAST M15	MN07	1					2\1
IGNITER M81	MN08	3	2	3		2	20\10
<b>FREQ</b>							
<b>AC</b>		2	2	2	2	2	
<b>RC</b>		1	1	1	1	1	

Notes:

<sup>1</sup> Authorized quantity is shown in feet.

*c. EOD Procedures Standard. (See tables 9–16 thru 9–19)*

(1) Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have performed EOD procedures using the EOD render safe procedure tools and systems to Soldier's Manual standards quarterly.

(2) The tasks are:

- (a) Construct and employ the caliber.50 dearmer with the electric firing system.
- (b) Construct and employ the caliber.50 dearmer with the non-electric firing system.
- (c) Construct and employ the rocket wrench with the electric firing system.
- (d) Construct and employ the rocket wrench with the non-electric firing system.
- (e) Construct and employ the cutter, HE, MK 23 and 24 MOD 0 EXRODs.
- (f) Construct and employ the percussion actuated non-electric neutralization disrupter (PAN).
- (g) Construct and employ specialized shaped charges.
- (h) Construct and employ flexible linear shaped charges (FLSC) (semi-annually).
- (i) Construct and employ the water bottle charge.

- (j) Construct and employ the shotgun and dearmer mounted on the Remote Ordnance Neutralization System (RONS) robot against simulated improvised explosive devices (IED).
- (k) Construct and employ a thermite grenade disposal system (semi-annually).
- (l) Disrupt UXO with caliber .50 sniper rifle (semi-annually).
- (3) See tables for render safe procedure tool strategy.

**Table 9–16**  
**Render Safe Procedure**

Event	DODIC						Freq	
	A011	A017	A525	A552	G900	M023	AC	RC
Electric Rocket Wrench							2	1
Non-Elec Rocket Wrench				2			2	1
Electric Dearmer							2	1
Non-Elec Dearmer				1			2	1
Cutter,HE							2	1
Thermite				2	3		2	1
FLSC							2	1
Construct Water Charges						2	2	1
Construct & Employ specialized shaped charges						2	2	1
Pan Disrupter							2	1
IDD Procedure							2	1
Disrupt UXO w/M82A1 rifle			15				1	1
Disrupt IED w/ RONS mounted shotgun	2	2					2	1
<b>RSP total (AC)</b>	4	4	15	10	6	8		1
<b>RSP total (RC)</b>	2	2	15	5	3	4		

Notes:

<sup>1</sup> Actual DODIC may be different based on local asp stockage. Authorized DODIC range is ML09 (20 GR/FT) to ML19 (600 GR/FT). Preferred DODIC is ML15 (225 GR/FT)

<sup>2</sup> Authorized quantity is shown in feet.

**Table 9–17**  
**Render Safe Procedure<sup>2</sup>**

Event	DODIC							Freq	
	M060 <sup>2</sup>	M130	M131	M174	M456	ML04 <sup>1</sup>	ML05	AC	RC
Electric Rocket Wrench				2				2	1
Non-Elec Rocket Wrench					10			2	1
Electric Dearmer				1				2	1
Non-Elec Dearmer					10			2	1
Cutter,HE						1	1	2	1
Thermite								2	1
FLSC								2	1
Construct Water Charges	4	8			100			2	1
Construct & Employ specialized shaped charges			1		10			2	1
Pan Disrupter								2	1
IDD Procedure								2	1

**Table 9–17**  
**Render Safe Procedure<sup>2</sup>—Continued**

Disrupt UXO w/M82A1 rifle								1	1
Disrupt IED w/ RONS mounted shotgun			1					2	1
<b>RSP total (AC)</b>	8	16	4	6	260	2	1		1
<b>RSP total (RC)</b>	4	8	2	3	130	1	1		

Notes:

<sup>1</sup> Actual DODIC may be different based on local asp stockage. Authorized DODIC range is ML09 (20 GR/FT) to ML19 (600 GR/FT). Preferred DODIC is ML15 (225 GR/FT)

<sup>2</sup> Authorized quantity is shown in feet.

**Table 9–18**  
**Render Safe Procedure**

Event	DODIC							Freq	
	ML15 <sup>1</sup>	MN69	MN06	MN08	AA62	AA63	AA64	AC	RC
Electric Rocket Wrench								2	1
Non-Elec Rocket Wrench			2	2				2	1
Electric Dearmer								2	1
Non-Elec Dearmer			2	2				2	1
Cutter,HE		2	2	2				2	1
Thermite			2	2				2	1
FLSC	6		2	2				2	1
Construct Water Charges			2	2				2	1
Construct & Employ specialized shaped charges			2	2				2	1
Pan Disrupter					1	1	1	2	1
IDD procedure								2	1
Disrupt UXO w/M 82A1 Rifle								1	1
Disrupt IED w/ RONS Mounted Shotgun								2	1
<b>RSP total (AC)</b>	12	4	28	28	2	2	2		
<b>RSP total (RC)</b>	6	2	14	14	1	1	1		

Notes:

<sup>1</sup> Actual DODIC may be different based on local asp stockage. Authorized DODIC range is ML09 (20 GR/FT) to ML19 (600 GR/FT). Preferred DODIC is ML15 (225 GR/FT)

<sup>2</sup> Authorized quantity is shown in feet.

**Table 9–19**  
**Render Safe Procedure<sup>2</sup>**

Event	DODIC						Freq	
	DWEC	AA66	DWED	DWEE	DWDN	M842	AC	RC
Electric Rocket Wrench							2	1
Non-Elec Rocket Wrench							2	1
Electric Dearmer							2	1
Non-Elec Dearmer							2	1
Cutter,HE							2	1



**Table 9–19**  
**Render Safe Procedure<sup>2</sup>—Continued**

Thermite					2	2	1
FLSC						2	1
Construct Water Charges						2	1
Construct & Employ specialized shaped charges						2	1
Pan Disrupter	1	1	1	1		2	1
IDD procedure					1	2	1
Disrupt UXO w/M 82A1 Rifle						1	1
Disrupt IED w/ RONS Mounted Shot-gun						2	1
<b>RSP total (AC)</b>	2	2	2	2	2	4	
<b>RSP total (RC)</b>	1	1	1	1	1	2	

Notes:

<sup>1</sup> Actual DODIC may be different based on local asp stockage. Authorized DODIC range is ML09 (20 GR/FT) to ML19 (600 GR/FT). Preferred DODIC is ML15 (225 GR/FT)

<sup>2</sup> Authorized quantity is shown in feet.

*d. EOD Collective Training.* (See table 9–20) Soldiers assigned to EOD companies and headquarters detachments will participate in a live fire exercise in accordance with para.9–5 to ARTEP/MTP standard annually.

**Table 9–20**  
**Collective Training<sup>1</sup>**

ITEM	COLLECTIVE TRAINING(PER UNIT)				UNIT ROLL-UP(Sum of Demo, RSP, and Collective strategies) <sup>4</sup>		
	DODIC <sup>2</sup>	FTX/STX	Total AC/RC	AC EOD Co (X19)	CONUS SPT EOD Co (X28)	RC EOD Co (X19)	
	FREQ	AC	3	1			
		RC	1	1			
CTG. 12 GAU 00 BUCK	A011				76	112	38
CTG, 12 GAU #9	A017				76	112	38
CTG, .50 BALL, SGLE	A525				285	420	285
CTG, .50 BALL	A552	14	2	44/16	234	324	111
PROJO, MISC <sup>1</sup>	DXXX		15		15	15	15
GREN INCEN AN–M14	G900		6	6/6	120	174	63
CHG, DEMO C–4	M023		115		495	675	305
CHG, DEMO PETN <sup>3,6</sup>	M060		20	20	172	244	172
CAP ELEC,M6	M130		40	40	420	600	268
CAP, N/E M7	M131		30	30	182	254	106
CTG, IMPULSE. 50	M174	21	30	93/ 51	245	317	127
CORD DET <sup>3</sup>	M456	50	1500	1650/1550	10390	14530	5920
FUZE, BLAST M700 <sup>3</sup>	M670	125	125	500/250	1070	1340	535
CUTTERHE MK23	ML04				38	56	19
CUTTERHE MK24	ML05				38	56	19
FLSC 225 GR <sup>2,3</sup>	ML15 <sup>2</sup>	5	5	20/10	248	356	200
HOLDER, M9	ML45	5	5	20/10	134	188	67

**Table 9–20**  
**Collective Training<sup>1</sup>—Continued**

CAP BLAST M11	MN69	5	5	20/10	134	188	67
CHG, DEMO M221	MM50	5	5	20/10	58	76	29
CAP BLAST M21	MN88	5	5	20/10	58	76	29
CAP BLAST M23	MN90	5	5	20/10	58	76	29
CAP BLAST M14	MN06	14	26	68/40	790	1132	401
CAP BLAST M15	MN07	5	5	20/10	58	76	29
IGNITER M81	MN08	14	62	104/76	1016	1448	532
CTG, PAN UV MK274 <sup>5</sup>	AA62	10	7	37/17	75	225	36
CTG, PAN AVON MK275 <sup>5</sup>	AA63	10	7	37/17	75	225	36
CTG, PAN LV BLNK POP MK276 <sup>5</sup>	AA64	10	7	37/17	75	225	36
CTG, PAN EN BLNK MK277 <sup>5</sup>	DWEC	10	7	37/17	75	225	36
CTG, PAN CBPB MK278 <sup>5</sup>	AA66	10	7	37/17	75	225	36
CTG, PAN CSS MK279 <sup>5</sup>	DWED	10	7	37/17	75	225	36
CTG, PAN AS MK280 <sup>5</sup>	DWEE	10	7	37/17	75	225	36
CHG, LDD MK171	DWDN	18	18	72/36	110	128	55
SQUIB, ELEC	M842				76	112	38
FIRING DEV, M142	ML03	9	9	36/18	36	36	18

Notes:

<sup>1</sup> DODIC as determined by local ASP. Quantity authorized to permit EOD personnel to train on destruction of ordnance by detonation. Local asp may utilize unserviceable ammunition to meet requirements.

<sup>2</sup> Actual DODIC may be different based on local ASP stockage. Authorized DODIC range is ML09 (20 GR/FT) to ML19 (600 GR/FT). Preferred DODIC is ML15 (225 GR/FT).

<sup>3</sup> Authorized quantity is shown in feet.

<sup>4</sup> Sum of demo, RSP, and collective strategies. Utilize current MTOE of authorized EOD Soldiers to calculate ammunition requirements.

<sup>5</sup> CONUS support Company authorized more total pan ammo due to greater FTX frequency.

<sup>6</sup> Use M060 or suitable sheet explosive.

## 9–9. Ordnance (Ammunition) Units.

This section provides standards, training strategies, and resource requirements for Ordnance (Ammunition) unit's demolition training. All tasks should be performed to standard utilizing inert materials as a practice prior to the use of live demolition material.

## 9–10. Modernized Demolition Initiator (MDI) Demolition Standard.

Ninety percent of the assigned Soldiers with a Soldier's Manual requirement must have constructed inert and live demolition firing systems and primed explosives for live fire to Soldier's Manual standards within the past twelve months in accordance with table 9–21 for Active, Reserve and National Guard units. The ammunition requirements are listed in table 9–21. The following tasks are to be performed in accordance with FM 5–250.

- a. Construct MDI demolition system.
- b. Prime explosives with MDI.
- c. Prime explosives with detonating cord.

## 9–11. Demolition for Emergency Destruction of Ammunition Standards.

All modular ammunition platoons with an ARTEP/MTP requirement must have employed inert and live demolitions for the emergency destruction of service ammunition to ARTEP/MTP standards every 12 months in accordance with table 9–21 for Active, ARNG and USAR units. The ammunition requirements for Modular Ammunition Ordnance Medium Lift Platoons (MLP), Ordnance Ammunition Company (TOE 09503LAOO) and Modular Ordnance Heavy Lift Platoons (HLP), Ordnance Ammunition Company (TOE 09503LB00) are listed in table 9–22.

**Table 9–21**  
**Demolition Training for Ordnance (Ammunition) Units**

Event	Type	DODIC	Freq	
			AC	ARNG/ USAR
Construct MDI detonating assembly <sup>1</sup>	<b>Individual</b> MDI		1/Live/Qualify	1/Inert/Qualify
			3/Inert/Sustain	2/Inert/Sustain
Prime Explosives w/MDI <sup>1,2</sup>	MDI		1/Live/Qualify	1/Inert/Qualify
			3/Inert/Sustain	2/Inert/Sustain
Prime Explosives with detonating cord <sup>1,2</sup>	MDI		1/Live/Qualify	1/Inert/Qualify
	C4	M023	3/Inert/Sustain	2/Inert/Sustain
	MDI		1/Live/Qualify	1/Inert/Qualify
	C4	M023	3/Inert/Sustain	2/Inert/Sustain
	Det Cord	M456		
	<b>Collective</b> MDI			
Emergency destruction of ammunition by detonation <sup>1,2</sup>	CHG ASSY DEMO	M757	1/Live/Qualify	1/Inert/Qualify

Notes:

<sup>1</sup> MDI Components: Holder, Blasting Cap, M9 (DODIC ML45), Cap, Blasting, In-Line Initiator, M21 (DODIC MN88), Cap, Non-electric, Delay, M14 (DODIC MN06); Booster, Demolition Charge, M152 (DODIC MN69); Igniter, M81 (DODIC MN08).

<sup>2</sup> INERT MDI components (for training purposes): Booster, Demolition Charge, M152 INERT (DODIC MN75); Cap, Blasting, In Line Initiator, M22 INERT (DODIC MN89); Cap, Non-electric, Delay M14 INERT (DODIC MN37).

**Table 9–22**  
**Annual Ammunition Requirements for Ordnance (Ammunition) Units**

Munitions	DODIC	Allocation
Booster Demo 10 ft Det Cord M151	MN68	93
Booster Demo 30 ft,M152	MN69 <sup>2</sup>	93
Demolitions-TNT (1 lb.) <sup>1</sup>	M032	
Demolitions-TNT (1/4 lb.) <sup>1</sup>	M030	
Demolitions-C4 (1 1/4 lb.) <sup>1</sup>	M023	84
Detonating Cord (FT)	M456	673
Holder M9	ML45	144
Igniter M81	MN08	50
Non-electric Cap M11		11
Non-electric Cap M21	MN88	33
Non-electric Cap M23	MN90	50
Non-electric Cap, Delay, M14	MN06	50

Notes:

<sup>1</sup> If C 4 is not available, substitute TNT. Quantity should be calculated using the multiplier 1.34 relative effectiveness factor. Calculate the quantity of TNT needed by multiplying the quantity of C–4 by 1.34 (relative effectiveness factor). The result should be rounded up to the nearest 1/4 lb. package size. This table combines individual and unit demolition quantities.

<sup>2</sup> Combination of DODICS can be ordered for annual training, not to exceed the total allocation for Ordnance Company.

## 9–12. Watercraft Units

This section provides standards, training strategies, and resource requirements for Army watercraft unit Soldiers that have a requirement to fire the M1200 Shotgun or M2 .50 Cal Machine Gun. Army watercraft units with such a requirement consist of Soldiers assigned to shipboard duty on a Logistics Support Vessel (LSV), Joint High Speed Vessel (JHSV), Large Tug (LT–800 Series), Small Tug (ST–900 Series), Landing Craft Utility (LCU), or Landing Craft Mechanized (LCM).

*a. M1200 Shotgun Training Strategy.* (See table 9–8)The LSV, JHSV, Small Tug Company and Large Tug Company will qualify eight enlisted Soldiers in the grade of E–6 and below per vessel. The Medium Watercraft

Company (LCU) and Heavy Watercraft Company (LCM) will qualify eight enlisted Soldiers in the grade of E-6 and below per company. The recommended strategy is given in table 9-8.

(1) Ninety percent of Active Soldiers authorized to conduct Shotgun qualification will meet the individual requirements to standard every 6 months in accordance with the standards listed in STP 19-95C1-SM.

(2) Eighty percent of Army Reserve Soldiers authorized to conduct Shotgun qualification will meet the individual requirements to standard every 12 months in accordance with the standards listed in STP 19-95C1-SM.

*b. M2 .50 Cal MG Training Strategy* (See table 9-24) One Soldier per M2 .50 cal MG assigned to the vessels will conduct sea-based qualification. The recommended strategy is given in table 9-6.

(1) Ninety percent of Active Soldiers authorized to conduct sea-based qualification will meet the individual requirements to standard every 6 months.

(2) Eighty percent of Army Reserve Soldiers authorized to conduct sea-based qualification will meet the individual requirements to standard every 12 months.

**Table 9-24**  
**M2 .50 Cal Sea-Based Qualification**

EVENT	Type	DODIC	Rounds	Freq	
				AC	ARNG/USAR
Preliminary Marksmanship Training	TADSS		N/A	2	1
table I	Ball	A557	90	2	1
table II	Ball	A557	90	2	1
table III	Ball	A557	180	2	1
<b>Total Rounds for Sea-Based Qualification</b>					
		A557		720	360

## Chapter 10

### Combat Training Centers and deployment exercises (DEPLOYEX)

#### 10-1. Description

*a.* This chapter provides the rotational training ammunition requirements for the Combat Training Centers (CTC): National Training Center (NTC), Joint Readiness Training Center (JRTC), Joint Multi-national Readiness Center (JMRC), and DEPLOYEX. The tables in this chapter provide the training ammunition and pyrotechnics requirements by DODIC. Actual quantities of ammunition and pyrotechnics needed to provide a full basic load for player units are provided through internal management of annual authorizations.

*b.* The objective of this chapter is to assist ammunition managers in forecasting ammunition and pyrotechnics requirements and preclude decrementing of home-station training ammunition in order to fully resource the CTC's or a DEPLOYEX.

#### 10-2. Resources

*a.* Resources provided in tables 10-1 to 10-20 are the quantities that are required by each type of rotation at the various training centers.

*b.* In order to determine the annual requirement at the CTC's, ammunition managers should take the totals provided times the number of rotations of a specific type that are anticipated for the upcoming year. In the case of the JRTC, required resources are identified by type event and by rotation. This will require ammunition managers to determine the number and type event each rotation requires.

*c.* DEPLOYEX tables (10-21 through 10-29) are to be used as a baseline for all deployment exercises. A DEPLOYEX is any type of exercise used to evaluate a unit's ability to conduct an effective deployment such as Bright Star, Intrinsic Action or Victory Strike. The ammunition in these tables is resourced above the unit's qualification ammunition. The tables include ammunition for CS/CSS units. The unit commander must use his discretion as to how ammunition is dispersed to his subordinate units.

#### 10-3. JMRC Rotational Requirements.

A common rotational requirement for blue forces (BLUEFOR), Force on Force, opposing forces (OPFOR), and Operations Group is established. The rotational requirements for JMRC live fire are based upon brigade sized ammunition packages. Depending on Task Force organization or special unit requirements, additional resources may be incorporated in the unit package. Ammunition requirements to support training events are identified in tables 10-1 through 10-4.

**Table 10–1**  
**BLUEFOR Requirements**

DODIC	NOMENCLATURE	AR BDE	INF BDE	LT BDE	CAV	4 AIR TRPS
A059	CTG, 5.56MM BALL, M855 10RD CLIP	12000	15000	14760	4300	0
A063	CTG, 5.56MM TR M856 SINGLE RD	2970	3600	3600	436	0
A064	CTG, 5.56MM 4 BALL, 1 TRACER LKD	5000	10000	12000	4800	0
A131	CTG, 7.62MM 4 BALL M80/1 TR M62 LKD	24710	24710	7200	5400	0
A358	CTG, 9MM TP–T M939 F/AT4 TRAINER	0	0	18	0	0
A363	CTG, 9MM BALL NATO, M882	0	0	60	0	0
A557	CTG, 50 CAL, 4 API M8/ 1 TRACER M33, LNKD	10000	10000	5000	7800	15360
A940	CTG, 25MM TPDS–T M910	6000	6000	0	1700	0
A976	CTG, 25MM TP–T M793 LINKED	6000	6000	0	1800	0
B118	CTG, 30MM TP M788 SNGL ROUND/wM592 CNTR	0	0	0	0	4901
B519	CTG, 40MM TP M781	87	87	480	19	0
B535	CTG, 40MM ILLUM WHT STAR PARA M583	23	23	72	5	0
B584	CTG, 40MM TP M918 LINKED	980	980	100	213	0
B647	CTG, 60MM ILLUMINATING,	0	0	72	0	0
BA17	CTG, 60MM HE M49 SERIES	0	0	50	0	0
B642	CTG, 60MM HE, M720 W/FUZE MULTI–OPTION, M7	0	0	72	0	0
C871	CTG, 81MM ILLUMINATION M301A2	0	0	72	0	0
C256	CTG,81MM HE M374 SERIES/W/PD–FUZE	0	0	72	0	0
C445	CTG, 105MM HE M1 W/O FUZE	0	0	50	0	0
C449	CTG, 105MM ILLUM M314A2E1	0	0	100	0	0
C452	CTG, 105MM SMK, HC M84A1	0	0	100	0	0
C623	120MM HE W/FUZE MORT	250	250	0	50	0
C784	CTG, 120MM TP–T M831	475	250	0	118	0
C785	CTG, 120MM TPCSDS–T M865	594	250	6	157	0
C995	CTG, LAUNCHER 84MM, M136, AT4	0	0	6	0	0
D505	PROJECTILE, 155MM ILLUMINATION, M485A2	36	36	0	22	0
D506	PROJECTILE, 155MM SMOKE HC BE, M116A1	36	36	0	22	0
DA12	CHARGE, PROPELLING 155MM GB, M3A1	150	150	0	99	0
DA13	CHARGE, PROPELLING 155MM WB, M4A2	601	601	0	500	0
D544	PROJECTILE, 155MM HE, M107	897	897	0	592	0
G811	GREN HAND PRAC	129	129	0	28	0
G878	FUZE, HAND GRENADE PRACTICE M228	129	129	70	28	0
G881	GRENADE HAND FRAG, M67	180	180	210	30	0
H975	RCKT, 2.75 IN WHD M274 PRAC, MTR MK66MOD3	0	0	0	0	414
J143	ROCKET, MOTOR, 5 IN MK22 MOD 4 (MICLIC)	12	12	0	3	0
K051	FUZE, MINE PRAC M604 F/AT M10A1/wM12/wM20	4950	4950	50	1089	0
K143	APERS M18A1 W/wM57 FIRING DEVICE	26	26	18	6	0
K230	MINE TNG M12A1	13	13	650	0	0
M023	CHARGE DEMO, BLOCK M112, (COMP C4)	256	256	26	56	0
M028	DEMO KIT, BANGALORE TORPEDO M1A2	24	24	6	4	0
M030	CHARGE DEMOLITION BLOCK, TNT 1/4 LB	9	9	1	2	0
M032	CHARGE DEMOLITION BLOCK, TNT 1 LB	32	32	3	7	0

**Table 10–1**  
**BLUEFOR Requirements—Continued**

M039	CHARGE DEMO, BLOCK 40LB CRATERING)	20	20	2	4	0
M130	CAP BLASTING, ELECTRICAL M6	50	50	75	11	0
M131	CAP BLASTING, NON-ELECTRICAL M7	465	465	45	102	0
M327	COUPLING BASE, FIRING DEVICE W/PRIMER	1381	1381	140	304	0
M456	CORD, DET REINFORCED/WTR PRF TYPE1/CLS E	2970	2970	500	653	0
MN06	FUZE, TIME BLASTING M700	720	720	150	158	0
M757	CHARGE ASSY DEMO, M183 (COMP C–4)	24	24	1	4	0
MN08	IGNITER, M2/wM60 (F/FUZE TIME BLSTG, MN06)	131	131	150	29	0
M913	CHARGE, DEMOLITION HE/LINEAR M58A3(MICLIC)	12	12	0	3	0
ML03	FIRING, DEVICE DEMO MULTI-PURPOSE M142	50	50	5	11	0
N285	FUZE, MTSQ, M577 W/O BOOSTER	63	63	18	42	0
N286	FUZE, MTSQ W/BOOSTER M582	350	350	50	250	0
N335	FUZE, PD M557 W/BOOSTER	297	297	0	65	0
N340	FUZE, PD M739, W/BOOSTER	0	0	50	0	0
N464	FUZE, PROXIMITY M732	600	600	0	300	0
N523	PRIMER PERCUSSION, M82	3286	3286	0	768	0

**Table 10–2**  
**OPFOR Requirements**

DODIC	NOMENCLATURE	AR BDE	INF BDE	LT BDE	CAV	4 AIR TRPS
G930	GRENAD HAND SMK HC AN–M8	0	0	60	0	0
G940	GRENAD HAND SMK GREEN, AN–M18	0	0	30	0	0
G955	GRENAD HAND SMK VIOLET AN–M18	0	0	30	0	0
L119	SIGNAL KIT, PERS DISTRESS A/P25S–5A	79	79	8	17	0
L307	SIGNAL, ILLUM GRND RED STAR CLSTR M159	0	0	12	0	0
L602	SIMULATOR, FLASH ARTILLERY M21	1500	1500	1500	1500	0
L709	SIMULATOR, TARGET HIT, M25	3000	3000	0	0	0
L715	SIMULATOR, MISSILE SAGGER, XM27	200	200	0	100	0
L720	TGT, KILL SIMULATOR, M26 (BLACK SMOKE)	3000	3000	0	0	0
MN60	ELECTRIC, MATCH IGNITER, M79	200	200	0	100	0

**Table 10–3**  
**JMRC Rotational Requirements: BLUEFOR<sup>1</sup> TYPE / (FREQ) ROTATION<sup>1</sup>**

DODIC	Nomenclature	AR (6)	MECH (6)	Div Cav (2)	LT/ABN (1)
A075	Ctg, 5.56MM BLK /AR	15625	30920	21525	65500
A080	Ctg, 5.56MM BLK /RIFLE	39520	74406	58376	108250
A111	Ctg, 7.62MM BLK M82 Link	29250	34250	37250	71500
A598	Ctg, .50 CAL BLK M9 Link	22800	32300	18200	78700
A599	Ctg, .50 CAL BLK M1A1	170	170	500	1400
B535	40MM White Star Para	0	0	0	65
G978	HG Smk HC	192	192	208	0
G940	Gren Smk GRN	64	64	64	206

**Table 10–3**  
**JMRC Rotational Requirements: BLUEFOR<sup>1</sup> TYPE / (FREQ) ROTATION<sup>1</sup>—Continued**

G950	Gren Smk RED	26	26	26	86
G955	Gren Smk VIOLET	64	64	64	200
K867	Smk Pot, FLT M4A2	58	58	62	0
L306	Sig Illum, RED	24	24	24	78
L311	Sig Illum, RED Para	24	24	24	78
L314	Sig Hand Held GRN	0	0	0	60
L367	Sim Anti-tank (ATWESS)	500	1753	1753	3443
L495	Flare Trip M49	25	24	24	78
L598	Sim Booby trap, Flash	24	24	24	78
L599	Sim Booby trap, Illum	24	24	24	78
L600	Sim, Booby trap, Whistle	24	24	24	78
L602	Sim Flash Arty, M21	3050	1950	3200	3800
N523	Primer Percussion, M82	0	0	0	175

Notes:

<sup>1</sup> The table shows the total requirement for one rotation. The annual requirement will vary based on the number and type of rotation that take place in a given year.

**Table 10–4**  
**JMRC Rotational Requirements: OPFOR / OPS GP 1**

DODIC	Nomenclature	OPFOR	OPS GP
A075	Ctg, 5.56mm BLK /AR	15000	0
A080	Ctg, 5.56mm BLK /RIFLE	20000	0
A111	Ctg, 7.62mm BLK	15000	0
A598	Ctg,.50 CAL BLK	5000	0
G978	Gren, Hand Smk HC	400	224
G940	HG Smk GRN	200	0
G945	HG Smk YEL	0	100
G950	HG Smk RED	95	127
G955	HG Smk VIOLET	200	0
G963	HG Riot CS	0	193
K867	Smk Pot, FLT M4A2	0	25
L306	Sig Illum, RED Cluster	95	0
L307	Sig Illum, WHITE, Cluster	120	144
L312	Sig Illum, WHITE Star	0	120
L314	Sig Illum, GREEN, Cluster	160	0
L366	Sim Proj, Airburst	0	2500
L367	Sim, Anti-tank (ATWESS)	1600	0
L495	Flare, Surface Trip	15	0
L594	Sim Proj, Ground burst	0	2500
L598	Sim Booby trap, Flash	15	0
L599	Sim Booby trap, Illum	15	0
L600	Sim Booby trap, Whistling	15	0
L601	Sim HG	0	2500

**Table 10–4**  
**JMRC Rotational Requirements: OPFOR / OPS GP 1—Continued**

L602	Sim Flash, M21 WESS	1250	0
M131	Cap Blasting, Elec	0	125
M456	Det Cord (FT)	0	2000
MN06	Fuze, Blasting	0	650
MN08	Igniter, Fuze	0	125

#### 10–4. NTC Rotational Requirements.

A common rotational requirement for BLUEFOR Live Fire, Force on Force, OPFOR, and Operations Group is established. Ammunition requirements to support unique units or special training events are included in the following tables. Depending upon the Task Force organization the additional unit requirements or special training events are added to the common rotational requirement. The additional requirements are determined from the Troop List; number of units (Co/Trp/Btry/Plt) multiplied by requirements established on each table. (E.g. Total number of armor COs x table 10–6). Ammunition requirements to support training events are identified in tables 10–5 through 10–11.

**Table 10–5**  
**(Rotation, special events and mortar platoons) NTC Rotational Requirements: BLUEFOR (Live Fire)<sup>1</sup>**

DODIC	NOMENCLATURE	Rtn	BSA LFX	Cvy LFX	Mort Plt	Mort Lanes
A059	Ctg, 5.56mm Ball M855	33,528	6,300	2,400		
A063	Ctg, 5.56mm Tr M856	5,100	2,100			
A064	Ctg, 5.56mm 4 Ball M855	40,700	6,000	2,800		
A131	Ctg, 7.62mm 4:1	78,000				
AA11	Ctg, 7.62mm Ball Match	100				
A557	Ctg, Cal .50cal 4 Ball	42,240	1,200	600		
B519	Ctg, 40mm TP M781	151				
B535	Ctg, 40mm Illum Wht Star Para M781	49				
C871	Ctg, 81mm Illum M301				139	20
C256	Ctg, 81mm HE M374				243	
C276	Ctg, 81mm Smk WP M375				52	
C623	Ctg, 120mm HE M933				150	50
CA03	Ctg, 120mm WP M929				30	30
C625	Ctg, 120mm Illum XM930				45	
C995	Ctg & Launcher, 84mm M136 AT–4	10				
G878	Fuze, Hand Grenade, Prac	260				
G881	HG Frag M67	50				
G982	HG SMK HC			15		
K143	Mine, Apers M18A1 W/ M57 Firing Device	58	2			
K180	Mine, AT Heavy M15 <sup>1</sup>	500				
L116	Signal, Kit PERS DIST RED M185	80				
M023	Chg, Demo Block M112, C4	259				
M028	Demo Kit, Bangalore Torp M1A2	2				
M039	Chg, Demo Block 40 LB Cratering	20				
M421	Chg, Demo Shaped M3 40 LB	20				
M456	Cord, Det	5000				
PE64	GM, Practice BTM–71A–3A (TOW)	6				



**Table 10-5**  
(Rotation, special events and mortar platoons) NTC Rotational Requirements: BLUEFOR (Live Fire)<sup>1</sup>—Continued

PL23	GM, Surface Attack, Dragon	4
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Notes:

<sup>1</sup> Item required once per year.

**Table 10-6**  
(Armor/Division Cavalry/Armored Cavalry Regiment (ACR)) NTC Rotational Requirements: BLUEFOR (Live Fire)

DODIC	NOMENCLATURE	AR Co.	Div Cav Trp	AR Cav Trp	M1/M3 CDR/S3
A940	Ctg, 25mm TPDS-T M910		2110	2110	340
A976	Ctg, 25mm TP-T M793		1820	1820	280
C784	Ctg, 120mm TP-T M831	154	99	99	22
C785	Ctg, 120mm TPCSDS-T M865	210	135	135	30
WH05	GM, Practice BTM-71A-3 (TOW)		2	2	

**Table 10-7**  
(Infantry and Engineer Units) NTC Rotational Requirements: BLUEFOR (Live Fire)

DODIC	NOMENCLATURE	Mech IN Co.	M2 CDR/S3	LT IN Co.	ABN Co.	AA Co.	EN Co.
A940	Ctg, 25mm TPDS-T M910 <sup>(1)</sup>	2066	340				170 <sup>1</sup>
A976	Ctg, 25mm TP-T M793 <sup>(1)</sup>	2233	280				140 <sup>1</sup>
B647	Ctg, 60mm Illum			30	30	30	
B642	Ctg, 60mm HE XM720			91	91	91	
B646	Ctg, 60mm Smk WP M722			91	91	91	
PB99	GM, Practice BTM-71A-3 (TOW)	7					
J143	Rocket Motor, 5IN MOD 4						13
M913	Chg, Demo HE Linear M58A3						1
M914	Chg, Demo Practice Linear <sup>2</sup>						4 <sup>2</sup>
ML03	Firing Device, Multi-Purpose M142						50
ML45	Holder, Cap & Tube						57
MN69	Cap, Blast Non-Elec 30' Shk Tube						184
MN88	Cap, Blast Non-Elec 500' Shk Tube						3
MN90	Cap, Blast Non-Elec 1000' Shk Tube						22
MN06	Cap, Blast Non-Elec Delay						12
MN08	Igniter, Time Blasting Fuze						130

Notes:

<sup>1</sup> Bradley engineers are resourced per vehicle.

<sup>2</sup> Each line charge can be used up to three times.

**Table 10–8**  
**(FA UNITS) NTC Rotational Requirements: BLUEFOR (LIVE FIRE)**

<b>DODIC</b>	<b>ARTY, 105MM BTRY</b>	<b>ARTY, 155MM BTRY</b>
C445	870	
C449	50	
C479	150	
D505		43
D510		1
D528		67
D533		189
DA12		301
DA13		685
D544		1,000
D550		40
D579		24
N285	150	110
N286		151
N335	870	851
N464		62
N535		1,292

**Table 10–9**  
**NTC Rotational Requirements: BLUEFOR (Force on Force)**

<b>DODIC</b>	<b>NOMENCLATURE</b>	<b>Rotation</b>	<b>105 BTY</b>
A010	Ctg, 10 GA Blank	0	700
A075	Ctg, 5.56mm Blank/SAW	53,000	
A080	Ctg, 5.56mm Blank/M16	63,840	
A111	Ctg, 7.62mm, Blank/M60	75,000	
A598	Ctg, .50 Cal Blank	67,000	
G950	Grenade, Hand Smk Red M18	83	
G955	Grenade, Hand Smk Vio M18	96	
G982	Grenade, Hand SMK HC	207	
K866	Smoke Pot, M5 HC	40	
L306	Signal, Illum Grnd Red Star Cluster	33	
L312	Signal, Illum Grnd Wht Star Para	151	
L314	Signal, Illum Grnd Grn Star Cluster	204	
L367	Simulator, ATWESS	4,095	
L602	Simulator, Flash M21	4,900	

**Table 10–10**  
**NTC Rotational Requirements: Operations Group**

DODIC	NOMENCLATURE	Rtn.	Trench Cert.	COB/ PPGs	BSA LFX	Cnvy LFX	CSAR	ChinaLake
A059	Ctg, 5.56mm Ball M855		1,080					
A064	Ctg, 5.56mm 4 Ball M855		800					
A075	Ctg, 5.56mm Blank/SAW		800					
A080	Ctg, 5.56mm Blank/M16		800	2,680				
B610	Lnchr & Ctg, Riot Control CS M18	14						
G878	Fuze, Hand Grenade, Prac		30					
G881	Grenade, Hand Frag M67		260					
G940	Grenade, Hand Smk Grn M18	96	20					
G945	Grenade, Hand Smk Ylw M18	600						
G950	Grenade, Hand Smk Red M18	600						
G955	Grenade, Hand Smk Vio M18	80						
G963	Grenade, Hand Riot CS M7	394						
G982	Grenade, Hand SMK HC	1,320				15	5	
K866	Smoke Pot, M5 HC	196	16				2	11
L306	Sig, Illum Grnd Red Star Cluster	600			3	1		
L307	Sig, Illum Grnd Wht Star Cluster	162						
L312	Sig, Illum Grnd Wht Star Para	343			10			
L314	Sigl, Illum Grnd Grn Star Cluster	100			5	3		
L366	Sim, Proj Air Burst M74A1	4,393						
L367	Sim, ATWESS			20	20	8		
L594	Sim Proj, Ground Burst	3,690					5	55
L595	Sim Proj, Air Burst M9 SPAL	2						
L601	Sim, Hand Grenade M116A1	2,548					5	
L602	Sim, Flash M21	4,018						
L709	Sim, Target, Hit	1,500						72
L715	Sim, Target, Hit	144						36
L720	Sim, Target Kill	500						
M131	Cap, Blasting Non-Elec M7	10						
M456	Cord, Det	500						
M591	Dynamite, Military M1	120						
MN06	Fuze, Blasting Time M700	50						
M757	Chg, Assy Demo Satchel	2						
MN08	Igniter	10						
ML45	Holder, Cap & Tube	20						
MN69	Cap, Blast Non-Elec 30' Shk Tube	15						
MN88	Cap, Blast Non-Elec 500' Shk Tube	1						
MN90	Cap, Blast Non-Elec 1000' Shk Tube	4						
MN06	Cap, Blast Non-Elec Delay	3						
MN08	Igniter, Time Blasting Fuze	22						
MN60	Igniter, Electric Match	144						36
Z201	Ctg, 5.45x39mm Blank			300				

**Table 10–10**  
**NTC Rotational Requirements: Operations Group—Continued**

Z206	Ctg, 7.62x55mm Blank	30
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**Table 10–11**  
**NTC Rotational Aviation Units Requirements: BLUEFOR (Live Fire)**

DODIC	NOMENCLATURE	Apache Trp	Tble VI AH64A/D	Kiowa Trp	Tble VI OH58D	Door Gnry	CSAR
A131	Ctg, 7.62mm 4:1					9,600	1,000
A557	Ctg, Cal .50cal 4 Ball			2400	640		
B118	Ctg, 30mm TP M788 LnkD RD	2400	3,600				
G982	Grenade, Hand SMK HC						5
L410	Flare, Countermeasure, XM206					10	
LA14	Flare, Countermeasure, XM211					10	
LA15	Flare, Countermeasure, XM212					10	
MD73	Ctg, Impulse M796					30	
H974	Rkt, 2.75" Whd M267	120	288	120	112		
PD68	GM, Surface Attack, (Hellfire)	8	8	8	8		

#### 10–5. JRTC Rotational Requirements.

The rotational BLUEFOR, Force on Force, OPFOR, and Operations Group requirements for JRTC are based on ammunition to support brigade sized packages. Depending upon Task Force organization or special unit requirements, additional resources may be incorporated into the package. Ammunition requirements to support BLUEFOR Live Fire are determined from the menu of training events selected per rotation on tables 10–12 through 10–20. Ammunition to support Special Forces (SF) rotations are identified in tables 10–21 and 10–22.

**Table 10–12**  
**JRTC Rotational Requirements: BLUEFOR (Live Fire) by event**

DODIC	Nomenclature	MOUT	AMB	CSCTY	MTC	ATK	LT/HVY
A011	Ctg, .00 Buckshot	0	0	0	0	48	48
A059	Ctg, 5.56MM BALL	0	2460	2460	2460	2460	2460
A063	Ctg, 5.56MM	0	600	600	600	600	600
A064	Ctg, 5.56MM AR	0	2400	2400	2400	2400	2400
A065 /AA68	Ctg. 5.56MM Plastic	7380/4860 <sup>1</sup>	0	0	0	0	0
A602	Ctg, Cal .50 SR TA 4:1	9600 <sup>1</sup>	0	0	0	0	0
AA39	Ctg, 7.62MM L SR TA	3200 <sup>1</sup>	0	0	0	0	0
AZ47	Ctg, 5.56MM L SR TA	3600 <sup>1</sup>	0	0	0	0	0
A131	Ctg, 7.62MM 4:1	1200	1200	1200	1200	1200	1200
AA11	Ctg, 7.62MM Match	0	0	0	20	20	20
A358	Ctg, 9MM F/AT–4	0	6	6	0	0	0
B508	Ctg, 40MM GRN	0	0	9	9	9	9
B509	Ctg, 40MM YLW	0	0	9	9	9	9
B519	Ctg, 40MM TP	252	72	72	84	84	84
B535	Ctg, 40MM WSP	40	12	12	12	12	12
B584	Ctg, 40MM TP–T2	0	0	150	0	0	0
B647	Ctg, 60MM Illum	32	16	0	0	0	0

**Table 10-12**  
**JRTC Rotational Requirements: BLUEFOR (Live Five) by event—Continued**

B642	Ctg, 60MM HE	0	28	0	20	0	0
C871	Ctg, 81MM Illum	32	0	16	0	32	0
C445	Ctg, 105MM HE	0	0	0	0	264	264
C449	Ctg, 105MM Illum	0	0	0	0	54	42
C479	Ctg, 105MM SMK HC	0	0	0	0	42	54
C623	Ctg, 120mm HE	0	0	0	0	0	320
C625	Ctg, 120mm Illum	0	0	0	0	0	160
C868	Ctg, 81MM HE	0	0	30	0	50	0
C875	Ctg, 81MM Prac	168	0	0	0	0	0
C995	RKT, 84MM AT-4	0	0	0	4	4	4
D505	Ctg, 155mm Illum	0	0	0	0	0	25
D528	Ctg, 155mm Smoke	0	0	0	0	0	20
DA12	Green Bag	0	0	0	0	0	220
D544	Ctg, 155mm HE	0	0	0	0	0	175
G878	Fuze, HG	360	0	0	0	0	0
G881	HG, Frag	0	0	0	20	35	20
G940	Gren, Smk GREEN	20	2	2	5	5	5
G945	HG, Smk YLW	20	0	0	0	0	13
G955	Gren, Smk VIOLET	20	2	2	5	5	5
G982	HG, Smk HC	30	9	9	16	10	15
K143	Mine, APERS	0	6	0	0	3	3
K866	SMOKE POT, HC M5	3	0	0	0	4	5
L307	Sig, Illum WSC	8	2	2	4	2	4
L312	Sig, Illum WSP	8	6	7	2	8	2
L314	Sig Illum Gsc	8	2	2	4	2	4
L495	Flare, Surf Trip	30	0	6	15	30	25
L598	Sim, B/T Flash	50	0	6	25	15	0
L602	Sim, WEISS	0	10	40	15	40	60
M023	Chg, DEMO C-4	0	5	5	2	5	5
M028	Demo Kit , Bangalore	0	0	0	0	2	2
M130	Cap, Blast Elec.	0	4	4	10	8	8
M131	Cap, Blast Non Elec	36	10	10	10	20	20
M456	Cord, Detonating (ft)	300	100	100	50	150	150
MN06	Fuze, Time Blast(ft)	150	50	50	50	50	50
MN08	Igniter, Time Blast	36	20	10	6	20	20
N285	Fuze for C479	0	0	0	0	42	99
N340	Fuze, PDS	0	0	0	0	264	439
N523	Primer	0	0	0	0	0	242

Notes:

<sup>1</sup> Resource is available for 40 PLT LFXs per FY.

**Table 10–13**  
**EXTENDED JRTC Rotational Requirements: BLUEFOR (Live Five) <sup>1, 2</sup>**

DODIC	Nomenclature	RAID	AA RAID	BREAK CNTC	VILLAGE MOUT	HOT LZ/ PZ	ARTY/ 2–GUN
A011	Ctg, .00 Buckshot	48	48	0	0	0	0
A059	Ctg, 5.56MM BALL	2460	2460	360	2460	0	0
A063	Ctg, 5.56MM TRACER	600	600	180	600	0	0
A064	Ctg, 5.56MM AR	2400	2400	0	2400	0	0
A131	Ctg, 7.62MM 4:1	1200	1200	0	1200	0	0
AA11	Ctg, 7.62MM Match	20	20	0	0	0	0
A363	Ctg, 9MM BALL	0	0	0	100	0	0
B508	Ctg, 40MM GRN SMK	9	9	0	19	0	0
B509	Ctg, 40MM YLW SMK	9	9	0	9	0	0
B519	Ctg, 40MM TP–T	84	84	0	84	0	0
B535	Ctg, 40MM WSP	12	12	0	12	0	0
B647	Ctg, 60MM Illum	0	0	0	16	0	0
B643	Ctg, 60MM HE	0	0	0	28	0	0
C445	Ctg, 105MM HE	78	102	0	0	102	70
C449	Ctg, 105MM Illum	24	24	0	0	24	10
C452	Ctg, 105MM SMK HC	18	18	0	0	18	0
C995	RKT, 84MM AT–4	4	4	0	0	0	0
G881	Gren, HD Frag	20	20	0	48	0	0
G982	Gren, Hand Smk HC	10	10	6	10	0	0
G940	Gren, Smk GREEN	5	5	2	5	0	0
G955	Gren, Smk VIOLET	5	5	2	5	0	0
K143	Mine, APERS	3	3	0	0	0	0
K866	SMOKE POT, HC M5	1	1	0	4	0	5
L307	Sig, Illum WSC	2	2	0	2	0	0
L312	Sig, Illum WSP	7	7	4	8	0	2
L314	Sig Illum Gsc	2	2	1	2	0	0
L495	Flare, Surf Trip	10	10	10	30	0	0
L602	Sim WESS	0	0	0	10	10	10
M023	Chg, DEMO C–4	5	5	0	5	0	0
M028	Demo Kit , Bangalore	2	2	0	0	0	0
M130	Cap, Blast Elec.	5	5	0	5	0	0
M131	Cap, Blast Nonelec	10	10	0	10	0	0
M456	Cord, Detonating (ft)	50	50	0	50	0	0
MN06	Fuze, Time Blast(ft)	50	50	2	50	0	0
MN08	Igniter, Time Blast	7	7	0	7	0	0
N340	Fuze, PDS	78	102	0	0	102	70

Notes:

<sup>1</sup> Quantities are for all types of rotations.

<sup>2</sup> Units must provide from home station training ammunition authorizations.

**Table 10–14**  
**JRTC Rotational Requirements: AVIATIONS (LIVE FIRE)**

DODIC	Nomenclature	LT/HVY	AA RAID	HOT LZ/PZ	RAID	MOUT	JAAT
<b>APACHE/COBRA</b>							
A896	Ctg, 20MM TP	1500	0	0	0	0	600
B120	Ctg,30MM TP	1500	0	0	0	0	1320
H975	RKT 2.75in Practice	14	0	0	0	0	14
PV041	TOW PRACTICE	3	0	0	0	0	0
PA79	HELLFIRE <sup>1</sup>	12	0	0	0	0	0
<b>KIOWA</b>							
A557	Ctg,50 CAL 4:1	2000	2000	2000	0	0	0
H975	RKT 2.75in Practice	14	14	14	0	0	14
PA79	HELLFIRE <sup>1</sup>	12	0	0	0	0	0
<b>BLACKHAWK</b>							
A131	Ctg,7.62MM 4: 1	0	1600	0	1600	0	0

Notes:

<sup>1</sup> If available. Otherwise, units desiring to fire missiles must use home-station training ammunition.

**Table 10–15**  
**JRTC Rotational Requirements: Force on Force**

DODIC	Nomenclature	Standard Rotation
A010	Ctg, 10GA BLK, Shotgun	3000
A075	Ctg, 5.56MM BLK, AR	137000
A080	Ctg, 5.56MM BLK, M16	446000
A111	Ctg, 7.62MM BLANK LKD	134000
A598	Ctg, .50 CAL BLK, M2	30000
G978	HG, HC	406
G940	HG, GREEN	296
G950	Gren, Smk RED	68
G955	Gren, Smk VIOLET	396
K866	Smk Pot	100
L306	Sig Illum RED Star	58
L307	Sig Illum WHITE Star	308
L312	Sig Illum WHITE Para	300
L314	Sig Illum GREEN Star	470
L367	Sim Anti-tank (ATWESS)	3200
L495	Flare, Trip	590
L598	Sim, Booby Flash	270
L599	Sim, Booby Illum	364
L600	Sim, Booby Whistle	600
L602	HOFFMAN	1200
ML03	Firing, Demo	300
M131	CAP, Blast Non Elec	200
M456	DET, CORD	2500

**Table 10–15**  
**JRTC Rotational Requirements: Force on Force—Continued**

MN06	FUZE, Time Blast	250
MN08	Igniter, Time Blast	250

**Table 10–16**  
**1JRTC Rotational Requirements: OPFOR**

DODIC	Nomenclature	Standard Rotation
A075	Ctg, 5.56MM Blank	33200
A080	Ctg, 5.56MM Blank	102300
A111	Ctg, 7.62MM Blank	31000
A598	Ctg, .50 CAL Blank	7800
G978	HG HC	96
G940	HG, GREEN	100
G950	Gren, Smk RED	10
G955	Gren, Smk VIOLET	100
G963	HG, CS	64
L306	Sig Illum RED Star	7
L307	Sig Illum WHITE Star	307
L312	Sig Illum WHITE Para	50
L314	Sig Illum GREEN Star	100
L367	Sim Anti-tank (ATWESS)	300
L495	Flare, Trip	72
L598	Sim, Booby Flash	20
L599	Sim, Booby Illum	45
L600	Sim, Booby Whistle	100
L602	HOFFMAN	600

**Table 10–17**  
**JRTC Rotational Requirements: Operations Group**

DODIC	Nomenclature	Standard Rotation
G978	HG, HC	37
G945	HG, YLW	105
G950	Gren, Smk RED	40
K866	Smk Pot, M5	10
L306	Sig Illum RED Star	15
L312	Sig Illum WHITE Star	12
L495	Flare, Trip	63
L598	Sim, Booby Flash	20
L601	Sim, HG	300
L602	HOFFMAN	100
L709	Sim Tgt Hit	450
L715	Sim Anti-Tank Guided Msl	200
L720	Sim Tgt Kill	255



**Table 10-17**  
**JRTC Rotational Requirements: Operations Group—Continued**

MN60	Igniter Electric Match	450
M130	Cap, Blast Elec.	40
M131	Cap, Blast Nonelec	20
M456	Cord, Detonating (ft)	1000
MN06	Fuze, Time (ft)	100
MN08	Igniter, Time Fuze	10

**Table 10-18**  
**JRTC Rotational Requirements: Fire Markers**

DODIC	Nomenclature	Standard Rotation
G978	HG, HC	280
G945	HG, YLW	25
G950	Gren, Smk RED	5
K866	Smk Pot, M5	30
L306	Sig Illum RED Star	10
L312	Sig Illum WHITE Star	150
L366	Sim, Airburst	2760
L594	Sim, Ground burst	2760
L599	Sim, Booby trap, Illum	75
L601	Sim, HG	340
L602	HOFFMAN	70

**Table 10-19**  
**JRTC Rotational Requirements: Air Force Controllers**

DODIC	Nomenclature	Standard Rotation
G978	HG, HC	100
L312	Sig Illum WHITE Star	30
L366	Sim, Airburst	180
L594	Sim, Ground burst	100

**Table 10-20**  
**JRTC Rotational Requirements for each ODA Live Fire**

DODIC	NOMENCLATURE	RDS PER EVENT
A011	CTG, 00 BUCKSHOT	24
A059	CTG, 5.56MM BALL	1680
A063	CTG, 5.56MM TRACER	840
A064	CTG, 5.56MM AR 4/1 MIX	2000
A075	CTG, 5.56MM BLANK LINKED	2000
A080	CTG, 5.56MM BLANK	1680
A131	CTG, 7.62MM 4/1 MIX	1600
A111	CTG, 7.62MM BLANK LINKED	1600
AA11	CTG, 7.62MM SPECIAL	20

**Table 10–20**  
**JRTC Rotational Requirements for each ODA Live Fire—Continued**

A363	CTG, 9MM BALL	540
A358	CTG, 9MM TRACER	15
A555	CTG, .50 CAL BALL	10
A557	CTG, .50 CAL MIX	1000
A598	CTG, .50 CAL BLANK	1000
B504	40MM GRN STAR PARA	4
B505	40MM RED STAR PARA	4
B519	40MM TP–T	20
B546	40MM HE	20
B535	40MM WHITE STAR PARA	20
B542	40MM HE LINKED	250
B584	40MM TP LINKED	250
A140	CTG, 7.62/ 90MM SUB CAL	6
C995	AT–4	6
G878	GREN, PRACTICE	24
G881	HG, FRAG	24
G940	GREN, SMOKE HC	24
G945	GREN, SMOKE YLW	4
G950	GREN, SMOKE RED	4
G955	GREN, SMOKE VIOL	4
H708	LAW, SUB CAL	10
K139	MINE, M18A1 INERT	6
K143	MINE, M18A1 CLAYMORE	6
L306	SIG, ILLUM RS	4
L307	SIG, ILLUM WHITE STAR	4
L312	ILLUM WS PARA	4
L314	SIG, ILLUM GRN STAR PARA	5
L495	TRIP FLARE	15
L598	SIM, BOOBYTRAP FLASH	4
L599	SIM, BOOBYTRAP ILLUM	4
L600	SIM, BOOBYTRAP WHISLE	4
L601	SIM, HAND GRENADE	24
M023	CHG, DEMO C4	10
M130	CAP, BLASTING ELEC.	15
M131	CAP, BLASTING NON ELEC	10
M456	DET, CORD (FT)	1000
MN06	FUZE, TIME (FT)	100
MN08	IGNITER, TIME FUZE	5

**Table 10–21**  
**JRTC: Forward Operating Base**

DODIC	A131/ A111	A064/A075	A063/A080	K139	B542	SEE ITEM
FOB	3000/ 800	8400/ 8000	2000/ 0	10	300	
100 MAN FID	4000/ 0	10000/0	0/ 12000			
12 MAN FID	2000/ 0	2000/ 0	0/ 1200			
SMK, GRN GRN (G940)						100
SMK, GRN RED (G950)						100
SIG, ILL WHITE PARA (L307)						100
SIG, ILL RED STAR (L311)						100
SIG, ILL WHITE STAR (L312)						100
SIG, ILL GRN STAR (L314)						100

**Table 10–22**  
**JRTC Rotational Requirements: ARMOR ELEMENT LT/HVY LIVE FIRE**

DODIC	Nomenclature	M1A1/A2	M3
A131	Ctg, 7.62MM 4:1	1000	1600
A143	Ctg, 7.62 BALL	1000	0
A557	Ctg, 50 CAL 4:1	2400	0
A940 <sup>1</sup>	Ctg, 25MM TPDS–T <sup>2</sup>	0	360
A976 <sup>1</sup>	Ctg, 25MM TP–T <sup>2</sup>	0	240
C784	Ctg, 120MM TP–T	44	0
C785	Ctg, 120MM TPCSDS–T	24	0
G978	Gren, SMK Screen RP <sup>2</sup>	16	16
PV04	TOW Practice <sup>2</sup>	0	4

Notes:

<sup>1</sup> All quantities reflect ammunition per vehicle.

<sup>2</sup> If available. Otherwise, units desiring to fire 25mm and missiles must use home-station training ammunition.

## 10–6. DEPLOYEX Requirements

The tables and ammunition requirements to support an exercise Live Fire and/or Force on Force have been developed using historical exercise data and established CTC tables. Commanders should use the tables as a guide to establish ammunition requirements. The actual ammunition requirement may vary due to the nature of the exercise or the composition of the unit participating in the exercise. tables 10–23 through 10–31 list the ammunition requirements for DEPLOYEXs. The ammunition in these tables are resourced above the units qualification ammunition. The tables include ammunition for CS/CSS units. The unit commander must use his discretion as to how ammunition is dispersed to his subordinate units. Ammunition to support SF DEPLOYEX is identified in tables 10–30 and 10–31.

**Table 10–23**  
**DEPLOYEX Requirements: Screening Fires<sup>1</sup>**

DODIC	Nomenclature	BCT <sup>2</sup>	AR TF (2X1)	IN TF (1X2)	ACR TF	STD TF (2x2) <sup>3</sup>
A131	Ctg, 7.62-mm 4:1	9500	3950	4750	6400	4750
A557	Ctg, .50 4B/1T CAL M2	6000	3000	3000	4100	3000
A940	Ctg, 25-mm TPDS–T	280	76	140	184	140
A976	Ctg, 25 -mm TP–T	210	57	105	138	105
C784	Ctg, 120-mm TP–T	120	60	30	82	60
C785	Ctg, 120-mm TPCDS–T	120	60	30	82	60
<b>Aviation TF Harmonization</b>		<b>6 Helo Co</b>	<b>8 Helo Co</b>			
B118	Ctg, 30-mm TP	1200				
H975/A13	RKT, 2.75" Practice 6	72				

Notes:

<sup>1</sup> Assumptions: Maximum of 30 M1 or 30 M2 BFV and 5 BSFV per STD TF. AR TF (2x1) assumes 14 BFV.

<sup>2</sup> BCT provides ammunition for units that task organize.

<sup>3</sup> STD TF is based on Intrinsic Action exercise where TF is 2x2.

**Table 10–24**  
**DEPLOYEX BLUEFOR LFX**

DODIC	Nomenclature	BCT <sup>1</sup>	AR TF (2X1)	IN TF (1X2)	ACR TF	STD TF (2x2) <sup>2</sup>
A059	Ctg, 5.56-mm BALL	23520	15120	23250	15120	23520
A063	Ctg, 5.56-mm TR (A068/072 ILO)	3280	1640	3280	1640	3280
A064	Ctg, 5.56-mm /Link	8400	5600	8800	8000	8800
A131	Ctg, 7.62-mm 4:1 Link	20000	17600	20000	16800	20000
A557	Ctg, .50 4B/1T CAL M2	12600	10200	6300	14800	12600
A940	Ctg, 25-mm TPDS–T	3240	1620	3240	4440	3240
A976	Ctg, 25 -mm TP–T	2340	1200	2340	3000	2340
B519	Ctg, 40-mm TP–T (either/or B546)	120	80	120	80	120
B535	Ctg, 40-mm WHITE Star Para 5, 6	12	8	12	12	12
B546	Ctg, 40 mm HEDP (either/or B519)	144	72	144	72	144
B584	Ctg, 40-mm TP Link MK 19	225	150	150	150	150
C871	Ctg, 81-mm Illum Mort 3, 6	27	18	18	30	24
C623	Ctg, 120-mm HE Mort	120	144	144	144	192
CA03	Ctg, 120 mm WP Mort	32	24	24	32	32
C625	Ctg, 120 mm Illum Mort 3, 6	90	60	60	60	80
C784	Ctg, 120-mm TP–T	210	210	105	288	210
C785	Ctg, 120-mm TPCDS–T	140	140	70	205	140
C995	Ctg 84 mm Heat AT4	24	12	24	24	24
D505	Proj, 155-mm Illum	80	40	40	40	40
D510	Proj, 155-mm CPRHD 4,	2	0	0	0	0
D528	Proj, 155-mm Smk	12	12	12	14	12
D533	Prop Chg, RB M119 6	100	100	100	100	100
DA12	Prop Chg, GB M3A1	64	64	64	64	64
DA13	Prop Chg, WB M4A2	120	120	120	120	120

**Table 10–24**  
**DEPLOYEX BLUEFOR LFX—Continued**

D544	Proj, 155-mm HE	192	192	192	192	192
D550	Proj, 155-mm Smk WP	42	42	42	48	42
D579	Proj, 155-mm RAP 4	6	6	6	6	6
G811	Practice Gren Body	90	30	30	0	30
G815	Grenade, SMK Screening RP UK	216	144	144	192	192
G878	Fuze, HG,Prac 6	90	45	90	0	90
G881	HG, Frag M67 6	36	18	36	0	36
G930/982	HG, HC 6	32	32	32	32	32
G940	HG, Smk Grn	16	16	16	16	16
G945	HG, Smk YLW	48	48	48	48	48
G950	HG, Smk Red 6	32	32	32	32	32
G955	HG, Smk Viol	32	32	32	32	32
J143	RKT, MK 22 MICLIC 6	4	4	4	4	4
K042	Volcano Mine Prac XM88	4	4	4	4	4
K143	Mine, M18 Claymore 6	6	3	6	0	6
L305	Sig, Illum GR Star Parach 6	12	10	12	12	12
L306	Sig, Illum RD Star	20	18	20	20	20
L307	Sig, Illum WHT Star	24	24	24	22	24
L311	Sig, Illum RD Star/Parach	12	10	12	12	12
L312	Sig, Illum WHT Star/Parach	40	40	40	40	40
L314	Sig, Illum GR Star	24	24	24	24	24
M023	Chg Demo, comp C–4	48	36	36	48	48
M028	Demo Kit, Bangalore	12	12	12	12	16
M030	Chg Demo, 1/4 lb TNT	3	0	0	0	0
M032	Chg Demo, TNT	12	0	0	0	0
M039	Chg Demo, Crater 40 lb	4	0	0	0	0
M130	Cap Blasting, Elec	20	0	0	0	0
M131	Cap Blasting, Non Elec	50	50	50	50	50
M327	Demo, Standard Base	250	0	0	0	0
M456	Cord, Detonating (ft)	1000	1000	1000	1000	1000
MN06	Fuze, Blasting Time (ft)	400	400	400	400	400
M757	Chg Demo, Satchel	4	3	3	3	4
MN08	Igniter Fuze, Blasting	46	46	46	52	46
M913	Line Chg, MICLIC (either/or M914)	4	3	3	3	4
M914	Inert MICLIC (either/or M913)	2	1	1	1	2
ML03	Firing Device, Multipurpose	18	0	0	0	0
MN60	Igniter Electric Match	50	0	0	0	0
N285	Fuze, MTSQ M577	32	32	32	32	32
N335/340	Fuze, PDM M379	208	208	208	208	208
N464	Fuze Prox M732A2 (N291 ILO)	48	48	48		48
N523	Primer, Perc M82	260	260	260	260	260
PB96/99	MSL, TOW 6 (or PD62 if avail)	7	3	6	4	6

**Table 10–24**  
**DEPLOYEX BLUEFOR LFX—Continued**

PL23/PM80	Dragon (or Javelin, PL34, when issued)	2	2	2	0	1
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Notes:

<sup>1</sup> BCT provides ammunition for units that task organize.

<sup>2</sup> STD TF is based on Intrinsic Action exercise where TF is 2x2.

**Table 10–25**  
**DEPLOYEX BLUEFOR LFX<sup>1,2</sup>**

DODIC	Nomenclature	BCT	AR TF (2X1)	IN TF (1X2)	ACR TF	STD TF (2x2)
A059	Ctg, 5.56-mm BALL	23520	15120	23250	15120	23520
A063	Ctg, 5.56-mm TR (A068/072 ILO)	3280	1640	3280	1640	3280
A064	Ctg, 5.56-mm /Link	8400	5600	8800	8000	8800
A131	Ctg, 7.62-mm 4:1 Link	20000	17600	20000	16800	20000
A557	Ctg, .50 4B/1T CAL M2	12600	10200	6300	14800	12600
A940	Ctg, 25-mm TPDS–T	3240	1620	3240	4440	3240
A976	Ctg, 25 -mm TP–T	2340	1200	2340	3000	2340
B519	Ctg, 40-mm TP–T (either/or B546)	120	80	120	80	120
B535	Ctg, 40-mm WHITE Star Para 5, 6	12	8	12	12	12
B546	Ctg, 40 mm HEDP (either/or B519)	144	72	144	72	144
B584	Ctg, 40-mm TP Link MK 19	225	150	150	150	150
C871	Ctg, 81-mm Illum Mort 3, 6	27	18	18	30	24
C623	Ctg, 120-mm HE Mort	120	144	144	144	192
CA03	Ctg, 120 mm WP Mort	32	24	24	32	32
C625	Ctg, 120 mm Illum Mort 3, 6	90	60	60	60	80
C784	Ctg, 120-mm TP–T	210	210	105	288	210
C785	Ctg, 120-mm TPCDS–T	140	140	70	205	140
C995	Ctg 84 mm Heat AT4	24	12	24	24	24
D505	Proj, 155-mm Illum	80	40	40	40	40
D510	Proj, 155-mm CPRHD 4,	2	0	0	0	0
D528	Proj, 155-mm Smk	12	12	12	14	12
D533	Prop Chg, RB M119 6	100	100	100	100	100
DA12	Prop Chg, GB M3A1	64	64	64	64	64
DA13	Prop Chg, WB M4A2	120	120	120	120	120
D544	Proj, 155-mm HE	192	192	192	192	192
D550	Proj, 155-mm Smk WP	42	42	42	48	42
D579	Proj, 155-mm RAP 4	6	6	6	6	6
G811	Practice Gren Body	90	30	30	0	30
G815	Grenade, SMK Screening RP UK	216	144	144	192	192
G878	Fuze, Gren HD Prac 6	90	45	90	0	90
G881	GREN, HD Frag M67 6	36	18	36	0	36
G930/982	Gren Hand, HC 6	32	32	32	32	32
G940	HG, Smk Grn	16	16	16	16	16
G945	HG, Smk Yell	48	48	48	48	48
G950	HG, Smk Red 6	32	32	32	32	32

**Table 10–25**  
**DEPLOYEX BLUEFOR LFX<sup>1,2</sup>—Continued**

G955	HG, Smk Viol	32	32	32	32	32
J143	RKT, MK 22 MICLIC 6	4	4	4	4	4
K042	Volcano Mine Prac XM88	4	4	4	4	4
K143	Mine, M18 Claymore 6	6	3	6	0	6
L305	Sig, Illum GR Star Parach 6	12	10	12	12	12
L306	Sig, Illum RD Star	20	18	20	20	20
L307	Sig, Illum WHT Star	24	24	24	22	24
L311	Sig, Illum RD Star/Parach	12	10	12	12	12
L312	Sig, Illum WHT Star/Parach	40	40	40	40	40
L314	Sig, Illum GR Star	24	24	24	24	24
M023	Chg Demo, comp C–4	48	36	36	48	48
M028	Demo Kit, Bangalore	12	12	12	12	16
M030	Chg Demo, 1/4 lb TNT	3	0	0	0	0
M032	Chg Demo, TNT	12	0	0	0	0
M039	Chg Demo, Crater 40 lb	4	0	0	0	0
M130	Cap Blasting, Elec	20	0	0	0	0
M131	Cap Blasting, Non Elec	50	50	50	50	50
M327	Demo, Standard Base	250	0	0	0	0
M456	Cord, Detonating (ft)	1000	1000	1000	1000	1000
MN06	Fuze, Blasting Time (ft)	400	400	400	400	400
M757	Chg Demo, Satchel	4	3	3	3	4
MN08	Igniter Fuze, Blasting	46	46	46	52	46
M913	Line Chg, MICLIC (either/or M914)	4	3	3	3	4
M914	Inert MICLIC (either/or M913)	2	1	1	1	2
ML03	Firing Device, Multipurpose	18	0	0	0	0
MN60	Igniter Electric Match	50	0	0	0	0
N285	Fuze, MTSQ M577	32	32	32	32	32
N335/340	Fuze, PDM M379	208	208	208	208	208
N464	Fuze Prox M732A2 (N291 ILO)	48	48	48		48
N523	Primer, Perc M82	260	260	260	260	260
PB96/99	MSL, TOW 6 (or PD62 if avail)	7	3	6	4	6
PL23/PM80	Dragon (or Javelin, PL34, when issued)	2	2	2	0	1

Notes:

<sup>1</sup> BCT provides ammunition for units that task organize.

<sup>2</sup> STD TF is based on Intrinsic Action exercise where TF is 2x2.

Table 10–26

**NON–TF–ITEMS** (Items to be fired in conjunction with BCT/LFX other TF events if Aviation/MLRS units and ammunition available)

	HA13	HA17	PD68	B118	L602	L367
	2.75" M274	2.75" M267	Hellfire	30 mm M788	Hoffman	ATWESS
<b>Cav Sqdn or ATK Bn(AH–64)</b>						
Totals by Aircrew	8	6	1	150	15	20
18 aircrews	144	108	18	2700	270	360
29 aircrews	232	174	29	4350	435	500
35 aircrews	358	210	35	5250	525	620
<b>Cav Sqdn or ATK Bn(OH–58D Units)</b>						
	HA13	HA17	PD68/PL96	A557	L602	L367
Totals by Aircrew	14		1			
24 aircrews	336		24	300	15	20
32 aircrews	448		32	7200	360	480
40 aircrews	560		40	9600	480	640
<b>Door Gunnery for UH–60, CH–47, and UH–1 Units</b>						
	A143 1 Ball	A131 1 Mix	A111 1Blank	12000	600	800
Gunner		236	1286	500		
<b>MLRS Rocket Practice</b>						
H185		BCT	OTHER			
		6	12			

Table 10–27

**DEPLOYX Requirements for BLUEFOR (TYPE OF ROTATION)** <sup>1, 2</sup>

DODIC	Nomenclature	BCT	AR TF (2X1)	IN TF (1X2)	ACR TF	STD TF (2x2)
A075	Ctg, 5.56–MM BLK, Link	60800	19200	30400	16000	30400
A080	Ctg, 5.56–MM BLK, M16	67680	20680	35720	13160	35720
A111	Ctg, 7.62-mm BLK Link	72000	30400	36000	38400	36000
A598	Ctg, .50 CAL BLK, M2	61600	24600	24600	21400	30800
G930/982	Gren, HD HC	64	32	32	32	32
G940	Gren, Hand Smk Green	64	32	32	32	32
G950	Gren, Smk RED	48	32	32	32	32
G955	Gren, Smk VIOLET	64	32	32	32	32
L305	Sig, Illum GR Star Para	72	36	36	36	36
L306	Sig Illum RED Star	48	20	24	24	24
L307	Sig, Illum WHT Star	72	36	36	36	36
L311	Sig, Illum RD Star/Para	48	36	36	36	36
L312	Sig Illum WHITE Star Para	72	36	36	36	36
L314	SIG Illum GREEN Star	72	36	36	36	36
L367	Sim Anti-tank (ATWESS)	3600	1200	1800	2100	1800
L592	Sim TOW M80	120	30	60	82	60
L602	Hoffman	5184	2754	2754	3402	2754



**Table 10–27**  
**DEPLOYX Requirements for BLUEFOR (TYPE OF ROTATION) <sup>1, 2</sup>—Continued**

N523	Primer, Perc M82	1000	500	500	600	600
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Notes:

<sup>1</sup> BCT provides ammunition for units that task organize.

<sup>2</sup> STD TF is based on Intrinsic Action exercise where TF is 2x2.

**Table 10–28**  
**Rotation Requirements: Operations Group - (Force on Force - Co STXs & TF STX) <sup>1, 2</sup>**

DODIC	Nomenclature	BCT	AR TF (2X1)	IN TF (1X2)	ACR TF	STD TF (2x2)
G930/982	Gren, HD HC	896	448	448	448	448
G940	Gren, HD GREEN	96	48	48	48	48
G945	Gren, Smk Yellow	224	96	96	96	112
G950	Gren, Smk RED	128	48	48	48	64
G955	Gren, Smk VIOLET	32	16	16	16	16
G963	Gren, HD CS 319 (or G922/G924 ILO)	256	112	112	112	128
K866	Smk Pot, M5,	88	40	40	40	44
K867	Smoke Pot, Float M4	80	30	30	20	40
L305	Sig, Illum GR Star Parach	72	36	36	36	36
L306	Sig Illum RED Star	72	24	24	36	36
L307	Sig Illum WHITE Star	108	54	54	72	72
L311	Sig, Illum RD Star Parach	36	18	18	18	18
L312	Sig Illum WHITE Star Parach	216	72	72	108	108
L314	SIG Illum GREEN Star	108	54	54	72	72
L366	Sim, Proj Airburst <sup>2</sup>	2400	1200	1200	1200	1440
L594	Sim, PROJ Ground burst	2200	1000	1000	1100	1200
L595	Sim, PROJ SPAL <sup>2</sup> (20 per box)	2	2	2	2	2

Notes:

<sup>1</sup> BCT provides ammunition for units that task organize.

<sup>2</sup> STD TF is based on Intrinsic Action exercise where TF is 2x2.

**Table 10–29**  
**DEPLOYEX Requirements: Coalition Training/Live Fire**

DODIC	Nomenclature	MILES STX	Coalition LFX
A059	Ctg, 5.56-mm BALL	0	6400
A063	Ctg, 5.56-mm TR (A068/072 ILO)	0	1640
A064	Ctg, 5.56-mm /Link	0	3200
A075	Ctg, 5.56–MM BLK, Link	7600	0
A080	Ctg, 5.56–MM BLK, M16	8460	0
A111	Ctg, 7.62-mm BLK Link	9000	0
A131	Ctg, 7.62-mm 4:1 Link	0	6000
A557	Ctg, .50 4B/1T CAL M2	0	800
A598	Ctg, .50 CAL BLK, M2	4000	0
A940	Ctg, 25-mm TPDS–T	0	2000

**Table 10–29**  
**DEPLOYEX Requirements: Coalition Training/Live Fire—Continued**

A976	Ctg, 25 -mm TP–T	0	400
C784	Ctg, 120-mm TP–T	0	40
C785	Ctg, 120-mm TPCDS–T	0	16
C995	Ctg 84 mm Heat AT4	0	2
G930/982	Gren, HD HC	32	0
G940	Gren, HD GREEN	32	0
G950	Gren, Smk RED	16	0
G955	Gren, Smk VIOLET	32	0
L305	Sig, Illum GR Star Parach	36	0
L306	Sig Illum RED Star	36	0
L307	Sig Illum WHITE Star	36	0
L594	Sim, PROJ Groundburst	40	0
L367	Sim Anti-tank (ATWESS)	72	0
L601	Sim, HD Gren	20	0
L602	Hoffman	48	0
WH05	MSL, TOW	0	1
PL23/PM80	Dragon	0	1

**Table 10–30**  
**Requirements for each ODA DEPLOYEX**

DODIC	NOMENCLATURE	RDS PER EVENT
A011	CTG, OO BUCKSHOT	24
A059	CTG, 5.56MM BALL	1680
A063	CTG, 5.56MM TRACER	840
A064	CTG, 5.56MM AR 4/1 MIX	2000
A075	CTG, 5.56MM BLANK LINKED	2000
A080	CTG, 5.56MM BLANK	1680
A131	CTG, 7.62MM 4/1 MIX	1600
A111	CTG, 7.62MM BLANK LINKED	1600
AA11	CTG, 7.62MM SPECIAL	20
A363	CTG, 9MM BALL	540
A358	CTG, 9MM TRACER	15
A555	CTG, .50 CAL BALL	10
A557	CTG, .50 CAL MIX	1000
A598	CTG, .50 CAL BLANK	1000
B504	40MM GRN STAR PARA	4
B505	40MM RED STAR PARA	4
B519	40MM TP–T	20
B546	40MM HE	20
B535	40MM WHITE STAR PARA	20
B542	40MM HE LINKED	250
B584	40MM TP LINKED	250

**Table 10–30**  
Requirements for each ODA DEPLOYEX—Continued

A140	CTG, 7.62/ 90MM SUB CAL	6
C995	AT–4	6
G878	GREN, PRACTICE	24
G881	GREN, HD FRAG	24
G940	GREN, SMOKE HC	24
G945	GREN, SMOKE YEL	4
G950	GREN, SMOKE RED	4
G955	GREN, SMOKE VIOL	4
H708	LAW, SUB CAL	10
K139	MINE, M18A1 INERT	6
K143	MINE, M18A1 CLAYMORE	6
L306	SIG, ILLUM RS	4
L307	SIG, ILLUM WHITE STAR	4
L312	ILLUM WS PARA	4
L314	SIG, ILLUM GRN STAR PARA	5
L495	TRIP FLARE	15
L598	SIM, BOOBYTRAP FLASH	4
L599	SIM, BOOBYTRAP ILLUM	4
L600	SIM, BOOBYTRAP WHISLE	4
L601	SIM, HAND GRENADE	24
M023	CHG, DEMO C4	10
M130	CAP, BLASTING ELEC.	15
M131	CAP, BLASTING NON ELEC	10
M456	DET, CORD (FT)	1000
MN06	FUZE, TIME (FT)	100
MN08	IGNITER, TIME FUZE	5

**Table 10–31**  
DEPLOYEX (Forward Operating Base)

DODIC	A131/ A111	A064/ A075	A063/ A080	K139	B542	SEE ITEM
FOB	3000/ 800	8400/ 8000	2000/ 0	10	300	
100 MAN FID	4000/ 0	10000/ 0	0/ 12000			
12 MAN FID	2000/ 0	2000/ 0	0/ 1200			
SMK, GRN GRN (G940)						100
SMK, GRN RED (G950)						100
SIG, ILL WHITE PARA (L307)						100
SIG, ILL RED STAR (L311)						100
SIG, ILL WHITE STAR (L312)						100
SIG, ILL GRN STAR (L314)						100

## Chapter 11

### Rangers

#### 11-1. Description.

a. This chapter provides weapon standards, training strategies and resource requirements for the 75th Ranger Regiment. The training programs provided are specifically designed for each weapon system within Ranger (RGR) units. Each program contains a standard and strategy, which outlines the training requirements and includes suggested frequencies of live fire, sub-caliber and device usage.

b. The objective is to assist Ranger commanders in attaining and sustaining necessary proficiency of all weapon systems. The training programs will provide a method for the attainment and sustainment of weapons proficiency throughout the training year.

c. Training programs have been developed with the standard stated at the beginning of each program. The individual training strategy is given first, followed by the training of the squad, crew and or platoon. Proficiency is achieved through the use of dry/fire exercises, blank fire exercises, sub-caliber exercises, device usage and full caliber live/fire exercises. Ammunition requirements are discussed at the conclusion of each training program. The programs are developed on the assumption that training events will be evenly spaced throughout the training year. Resource availability (such as ranges) may allow a commander more live-fire opportunities of shorter duration. In this case, not all squads, crews and platoons in the battalion would train at each opportunity.

d. The training strategies in this section are based on exercises in current Field Manuals (FMs) and ARTEPs. The specifics of each exercise are not presented here; consult the appropriate manual. Qualification standards and 2 training strategies for some weapon systems have been divided into two categories:

(1) Category I applies to all Rangers assigned the 75th Ranger Regiment unless they are listed in Category II.

(2) Category II applies to Rangers assigned to the Regiment or Battalion Headquarters, Medical Platoon, Company Headquarters Section, Food Service Section, Support Platoon, Supply Section and the Ranger Training Detachment and specific weapon teams as designated by the Commander.

#### 11-2. Individual Weapons Training, Requirements and Qualifications Training Aids, Devices, Simulators and Simulations (TADSS)

a. Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-armor training strategies are wholly reliant on TADSS for qualification. Small arms TADSS are listed in Appendix B.

b. 75<sup>th</sup> Ranger Regiment units contain TADSS information on devices that are found in most units.

c. The 81MM insert for the 120MM mortar (M303). Consists of an 81MM (M29A1) barrel, a filler block and a sleeve that fits inside the 120MM barrel. It is capable of firing 81MM 300 series ammunition to include the training ammunition. The 81MM barrel insert device is intended to meet all training requirements for the mortar system. The insert permits firing all of the ARTEP critical tasks thereby training all of the indirect fire team (FO, FDC, and crews).

d. Full Range Training Round (FRTR). The FRTR is either an 81mm(xx) or a 120mm(xx) round.

e. Javelin Basic Skills Trainer (BST). The BST consists of a student station and an instructor station. It is an indoor/shipboard training device that can test the gunner's skills in a wide variety of situations. The student station consists of a simulated CLU and Simulated Missile Round (SMR). The instructor station consists of a color video display screen, an 80386-based microcomputer, hard and floppy disk drives, a keyboard, and an air conditioner. The instructor station allows the instructor to view all of the gunner's actions and to create new training exercises. The BST runs engagement exercises that are displayed as computer-generated images in the simulated CLU.

f. Javelin Field Tactical Trainer (FTT). The FTT consists of a Simulated Round (SR) and an Instructor Station. The FTT is designed to be used as an outdoor trainer and is equipped with the Multiple Integrated Laser Engagement System (MILES).

g. Javelin Missile Simulation Round. The Missile Simulation Round consists of a sealed launch tube that contains no instruments or circuitry. It simulates the weight and balance of the round and has CLU and BCU connectors. The Missile Simulation Round is used to train gunners how to maintain, handle, and carry the round Javelin Training Devices.

#### 11-3. Standard and Strategies for Training

**Zero/Field Fire Qualification:** Regiment is required to qualify every six months to maintain readiness. Night Fire/NBC Fire Qualification includes those activities required for qualification set forth in the FM appropriate to the weapon system.

a. *9mm Pistol.* (See table 11-1 & 11-2) Rangers assigned a 9mm pistol will qualify every six months. Qualification consists of firing the combat pistol qualification course in accordance with FM 3-23.35 and firing for record in

Mission Oriented Protective Posture (MOPP). Recommended training strategies and ammunition requirements are provided below.

**Table 11-1**  
**M9 Qualification (FM 3-23.35)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
Instructional Fire	Ball	AA49	40	2
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	7	2
CPQC table VII Night Fire <sup>1,2</sup>	Ball/EST	AA49	5	2
<b>Total Rounds for Qualification</b>				
Non EST Equipped Units	Comm. Pack	AA49	184	
EST Equipped Units	Comm. Pack	AA49	160	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 2. Installations equipped with the EST 2000, will conduct NBC & Night Fire on EST 2000.

**Table 11-2**  
**M9 Collective Training<sup>1</sup>**

M9 Pistol	Freq		
	AA49	CAT I	CAT II
Advance MOUT Training	40	1	1
OPALERT Preparation	19	1	1
<b>Total Rounds Required CAT I</b>	59		
<b>Total Rounds Required CAT II</b>	59		

Notes:

<sup>1</sup> 12 Rangers serve as AT Gunners and 3 Rangers serve as AT Team Leaders. Totaling 15 CAT II personnel in accordance with Commanders Guidance each AT Team will participate in an annual AT LFX. RTC 350-1 change is pending.

*b. M16A2/M4A1.* ( See table 11-3 & 11-4) All Rangers assigned a rifle will zero and meet the qualification standards in FM 3-22.9 within the past six months for the events listed below.

(1) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the day and NBC record course. Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(2) Day Requirements with EST 2000: Iron Sight: All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000. Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(3) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3-22.9. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS), Infrared Aiming Light.

**Table 11–3**  
**M16/M4 Qualification (FM 3–22.9)**

Event	Type	DODIC	Rounds	Freq
<b>Phase I</b>				
Preliminary Marksmanship Training	TADSS		0	4
<b>Phase II</b>				
Iron Sight Zero <sup>1</sup>	Ball	AA33	18	2
<b>Subtotal</b>	Ball	AA33	<b>36</b>	
<b>Iron Sight Qualification</b>				
<b>Phase III</b>				
Iron Sight Practice Record	Ball	AA33	40	2
Iron Sight Record <sup>1</sup>	Ball/EST	AA33	40	2
NBC Practice	Ball/EST	AA33	20	2
NBC Record <sup>1</sup>	Ball/EST	AA33	20	2
Unassisted Night Practice	Ball/Tracer/EST	AA33/A063	20/10	2
Unassisted Night Record <sup>1</sup>	Ball/Tracer/EST	AA33/A063	20/10	2
<b>Subtotal with EST</b>	Ball/Tracer	AA33/A063	<b>160/0<sup>3</sup></b>	
<b>Subtotal without EST</b>	Ball/Tracer	AA33/A063	<b>320/40</b>	
<b>CCO Qualification</b>				
<b>Phase IV</b>				
CCO Zero <sup>1,2</sup>	Ball	AA33	18	2
CCO Practice	Ball	AA33	40	2
CCO Record <sup>1,2</sup>	Ball	AA33	40	2
<b>Subtotal For CCO</b>	Ball	AA33	<b>196</b>	
<b>TWS Qualification</b>				
TWS Zero (WFOV & NFOV) <sup>1,2</sup>	Ball	AA33	36	2
TWS Night Field Fire I	Ball	AA33	36	2
TWS Practice	Ball	AA33	40	2
TWS Record <sup>1,2</sup>	Ball	AA33	40	2
<b>Subtotal For TWS</b>	Ball	AA33	<b>304</b>	
<b>IR Qualification</b>				
IR Zero <sup>1,2</sup>	Ball	AA33	18	2
IR Night Field Fire I	Ball	AA33	36	2
IR Practice	Ball	AA33	40	2
IR Record <sup>1,2</sup>	Ball	AA33	40	2
<b>Subtotal For IR</b>	Ball	AA33	<b>268</b>	
<b>Rounds For Qualification</b>				
Iron Sight Qualification w/o EST	Ball/Tracer	AA33/A063	356/40	
Iron Sight Qualification with EST	Ball	AA33 <sup>3</sup>	196	
CCO Qualification	Ball	AA33	196	
TWS Qualification	Ball	AA33	304	
IR Qualification	Ball	AA33	268	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> Installations equipped with the EST 2000, will conduct Night & NBC with the EST 2000.

**Table 11–4**  
**M16A2/M4 Collective Training<sup>1</sup>**

Event	AA33	A063	AA68	A080	Freq	
					CAT I	CAT II <sup>3</sup>
Sqd/Plt FTX			40 <sup>2</sup>	120	2	1
Sqd/Plt LFX	210	20			6	1
CALFEX	210	20			2	
Co FTX/DFT	210			120	2	
Bn FTX			40 <sup>2</sup>	120	1	
EXEVAL				120	1	
Major Exercise				210	1	
JRX				160	1	
BILAT				160	2	2
Advance MOUT Training	180		40		1	
OPALERT Preparation	24				1	
EDRE	210			120	1	
<b>Total Rounds Required CAT I</b>	2514	160	160	1530		
<b>Total Rounds Required CAT II</b>	210	20	0 <sup>3</sup>	440		

Notes:

<sup>1</sup> This includes M16A2/M4 w/M203.

<sup>2</sup> Required during shoot house training exercises.

<sup>3</sup> CAT II does not receive A065/AA68.

*c. 12 Gauge Shotguns.* (See table 11–5 & 11–6) All Rangers assigned a 12-gauge shotgun will qualify every six months. Recommended training strategies and ammunition requirements are provided below. Qualification will be conducted in accordance with STP 19–95C1–SM dated 26 Mar 99, Task # 191–381–1254.

**Table 11–5**  
**M1200Qualification (STP 19–95C1–SM)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
Instructional Fire	Buckshot	A011	10	2
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2
<b>Total Rounds for Qualification</b>				
	Buckshot	A011	40	

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–6**  
**M1200 Collective Training**

Event	DODIC	Freq
12 Gauge Shotgun	A011	CAT I
Sqd/Plt LFX	25	6
CALFEX	10	2
Major Exercise	10	1
JRX	13	1
Advance MOUT Training	25	1
OPALERT Preparation	13	1
EDRE	10	1
<b>Total Rounds Required</b>	<b>241</b>	

*d. M21/24/SR25 Sniper Rifles.* (See table 11–7 & 11–8) All Rangers designated as snipers will qualify with their assigned Sniper Rifle every three months.

(1) Qualification consists of firing in accordance with FM 3–23.10. Iron sights and scope will be zeroed monthly. Recommended training strategies and ammunition requirements are provided below.

(2) Additional Weapon System: With the addition of the SPR 5.56mm Rifle and the SR25 7.62mm rifle ammunition requirements have increased. See table listed below, Note 2.

**Table 11–7**  
**M21/24/SR25 Sniper Rifles (FM 3–23.10)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	12
<b>Zero</b>				
Iron Sights <sup>1</sup>	Ball	AA11	18	4
M3A Scope <sup>1</sup>	Ball	AA11	18	4
AN/PVS–10 DNS <sup>1</sup>	Ball	AA11	18	12
<b>Subtotal</b>				<b>360</b>
<b>Sustainment</b>				
Iron Sights	Ball	AA11	45	4
M3A Scope	Ball	AA11	45	4
AN/PVS–10 DNS	Ball	AA11	45	12
<b>Subtotal</b>				<b>900</b>
<b>Qualification</b>				
Iron Sights <sup>1</sup>	Ball	AA11	50	4
M3A Scope <sup>1</sup>	Ball	AA11	50	4
AN/PVS–10 DNS <sup>1</sup>	Ball	AA11	100	4
<b>Subtotal</b>				<b>800</b>
<b>Total Rounds</b>				
	Ball	AA11	2060	

Notes:

<sup>1</sup> Indicates Standard.



**Table 11–8**  
**M21/24/SR25 Collective Training<sup>1, 2</sup>**

Event	DODIC	Rounds	Freq
Sqd/Plt LFX	AA11	86	6
CALFEX	AA11	21	2
Major Exercise	AA11	21	1
JRX	AA11	28	1
Advance MOUT Training	AA11	86	1
OPALERT Preparation	AA11	27	1
<b>Total Rounds Required</b>	<b>AA11</b>	<b>720</b>	

Notes:

<sup>1</sup> M24 and .50 CAL meet standards in accordance with RTC 350–1.

<sup>2</sup> RTC 350–1 revisions will include the addition of the SR25 7.62mm weapon systems. Training strategies are in accordance with RTC 350–1.

*e. M107 .50 Cal Sniper Rifle.* ( See table 11–9 &11–10) All Rangers assigned the M107 Sniper Rifle will zero and meet the qualification standards for the iron sight and day optic in accordance with FM 3–23.10 and night optic in accordance with ST 23–AIMSS within the past six months.

**Table 11–9**  
**M107 Sniper Rifle Qualification (FM 3- 23.10)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	EST		0	6
Zero Iron Sight <sup>1</sup>	Ball <sup>1</sup>	A552	18	2
Zero Day Optic <sup>1</sup>	Ball <sup>1</sup>	A552	18	4
	AP <sup>1</sup>	A525	9	4
	API <sup>1</sup>	A531	9	4
	HEAPI <sup>1</sup>	A606	9	2
Zero Night Optic <sup>1</sup>	Ball <sup>1</sup>	A552	18	4
	AP <sup>1</sup>	A525	9	4
	API <sup>1</sup>	A531	9	4
Sustainment Iron Sight	Ball	A552	23	2
Sustainment Day Optic	Ball	A552	50	4
	AP	A525	54	4
	API	A531	40	4
	HEAPI	A606	30	2
Sustainment Night Optic	Ball	A552	50	4
	AP	A525	54	4
	API	A531	40	4
Qual Iron Sight <sup>1</sup>	Ball <sup>1</sup>	A552	25	2
Qual Day Optic <sup>1</sup>	Ball <sup>1</sup>	A552	20	4
	AP <sup>1</sup>	A525	28	4
	API <sup>1</sup>	A531	22	4
Qual Night Optic <sup>1</sup>	Ball <sup>1</sup>	A552	20	4
	AP <sup>1</sup>	A525	28	4
	API <sup>1</sup>	A531	22	4

**Table 11–9**  
**M107 Sniper Rifle Qualification (FM 3- 23.10)—Continued**

Total for Qualification		
Ball	A552	836
AP	A525	728
API	A531	568
HEAPI	A606	78

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–10**  
**M107 Sniper Rifle Weapon Collective Training**

Event	DODIC	Rounds	Freq
Collective Training			
Sqd/Plt LFX	A606	7	6
CALFEX	A606	7	2
Major Exercise	A606	7	1
JRX	A606	9	1
Advance MOUT Training	A606	7	1
OPALERT Preparation	A606	9	1
<b>Total Rounds Required</b>	A606	88	

*f. M203 Grenade Launcher.* (See table 11–11& 11–12) All Rangers assigned an M203 will qualify every six months. Qualification consists of firing table 8–2, FM 3–22.31. Recommended training strategies and ammunition requirements are provided below.

**Table 11–11**  
**M203 Qualification (FM 3–22.31)**

Event	Type	DODIC	Rounds	Freq
Day Zero <sup>1</sup>	TP	B519	6	2
Day Qualification <sup>1</sup>	TP	B519	15	2
Subtotal TP	TP	B519		42
Total Rounds for Qualification				
Day Qualification	TP	B519	42	

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–12**  
**M203 Collective Training**

Event	DODIC			CAT I Freq
	B519	B535	B546	
Sqd/Plt LFX	18	4		6
CALFEX	18	4	4	2
Co FTX/DFT	18	4		2
EXEVAL	18	4		1
Major Exercise	18	4		1
JRX	24	5		1
OPALERT Preparation			4	1
EDRE	18			1
<b>Total Rounds Required</b>	<b>258</b>	<b>53</b>	<b>12</b>	

g. *M249 SAW.* ( See table 11–13 & 11–14) All Rangers assigned a M249 Squad Automatic Weapon (SAW) will qualify every six months. Qualification consists of firing the 10-meter record course and the 10-meter transition course in accordance with FM 3–22.68. Recommended training strategies and ammunition requirements are provided below.

**Table 11–13**  
**M249AR Qualification (FM 3–22.68)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Iron Sight Qualification</b>				
<b>Firing table I</b>				
10m Zero <sup>1</sup>	Ball/EST	A062	6	2
10m Practice	Ball/EST	A062	51	2
10m Record <sup>1</sup>	Ball/EST	A062	51	2
<b>Subtotal with EST</b>	Ball	A062	0	0
<b>Subtotal without EST</b>	Ball	A062	216	
<b>Firing table II</b>				
Transition Zero <sup>1</sup>	Mix	A064	12	2
Transition Practice	Mix	A064	66	2
Transition Record <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>	Mix	A064	288	
<b>Firing table III ST 23–AIMSS</b>				
<b>TWS Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064	36	2
TWS Night Field Fire III	Mix	A064	66	2
TWS Limited Visibility Practice	Mix	A064	66	2
TWS Limited Visibility Qualification <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>			468	
<b>IR Qualification</b>				
IR Zero <sup>1</sup>	Mix	A064	18	2
IR Night Field Fire III	Mix	A064	66	2

**Table 11–13**  
**M249AR Qualification (FM 3–22.68)—Continued**

IR Practice	Mix	A064	66	2
IR Qualification <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>	Mix	A064	432	
<b>Total Rounds for Qualification</b>				
Iron Sight Qualification w/o EST/w EST	Mil Pack	A062	216/0	
Iron Sight Qualification (4&1 Mix)	Mil Pack	A064	288	
TWS Qualification	Mil Pack	A064	468	
IR Qualification	Mil Pack	A064	432	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA44.

**Table 11–14**  
**M249 Collective Training**

Event	DODIC		CAT I Freq
	A064	A075	
Sqd/Plt FTX		800	2
Sqd/Plt LFX	800		6
CALFEX	800		2
Co FTX/DFT	800	800	2
Bn FTX		1000	1
EXEVAL	800	800	1
Major Exercise		800	1
JRX		1064	1
BILAT		1068	2
OPALERT Preparation	53		1
EDRE	800	400	1
<b>Total Rounds Required</b>	<b>9653</b>	<b>9400</b>	

*h. Hand Grenade.* (See table 11–15 & 11–16) All Rangers will throw one live, fragmentation, hand grenade every 12 months and negotiate any grenade practice exercise every six months in accordance with FM 3–23.30 or conduct practice grenade throwing in conjunction with squad or platoon EXEVALS, Live Fire Exercise (LFX) or Field Training Exercise (FTX) every six months. Recommended training strategies and ammunition requirements are provided below.

**Table 11–15**  
**Hand Grenade (FM 3–23.30)**

Event	DODIC	Rounds	Freq
<b>Qualification</b>			
Hand Grenade Qualification Course <sup>1</sup>	G878	6	2
<b>Total For Qualification</b>	<b>G878</b>		<b>12</b>
Mock Bay	G878	2	1
Live Grenade Throw	G881	1	1

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–16**  
**Hand Grenades Collective Training**

Event	DODIC			CAT I Freq
	G881	G878	G911	
Sqd/Plt LFX	1	1	1	6
CALFEX	1			2
Advance MOUT Training	3	4		1
<b>Total Rounds Required</b>	<b>11</b>	<b>10</b>	<b>6</b>	

i. *AT4*. (See table 11–17 & 11–18) Two Rangers per Rifle/Weapon squad will qualify with the AT4 every six months. Qualification consists of firing the sub-caliber ammunition (9mm) in accordance with tables III & IV of Appendix D, FM 3–23.25. Recommended training strategies and ammunition requirements are provided below.

**Table 11–17**  
**AT–4 Qualification (FM 3–23.25)**

Event	DODIC	Rounds	Freq
table I Instructional Day	A358	12	2
table II Instructional Night	A358	12	2
table III Day Qualification <sup>1,2</sup>	A358	8	2
table IV Night Qualification <sup>1,2</sup>	A358	8	2
table V Advanced Fire	A358	6	2
<b>Total Rounds for Qualification</b>			
Qualification/Instructional Fire	A358	92	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> There are 48 rifle/weapon squads per Ranger Battalion that result in 96 Rangers that must qualify with the AT4 every six months.

**Table 11–18**  
**AT4 Collective Training<sup>1</sup>**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX	ATWESS	L367	5	2
Sqd/Plt LFX	HEAT	C995	2	6
CALFEX	ATWESS/HEAT	L367/C995	5/1	2
Co FTX/DFT	HEAT	C995	1	1
Bn FTX	HEAT	C995	1	1
EXEVAL	ATWESS	L367	5	1
OPALERT Preparation	Tracer	A358	16	1
<b>Total Rounds</b>				
	Tracer	A358	16	
	ATWESS	L367	25	
	HEAT	C995	16	

Notes:

<sup>1</sup> There are 48 rifle/weapon squads per Ranger Battalion that result in 96 Rangers that must qualify with the AT4 every six months.

j. *M240B Machine Gun*. (See table 11–19 & 11–20) All M240B Machine Gunners and Assistant Gunners (AGs) will qualify every six months. Qualification consists of the 10-meter record course, transition range course (FM 3–22.68) and night qualification standards in ST 23–AIMSS. Recommended training strategies and ammunition requirements are provided below.

(1) Day Requirements without EST 2000: **Iron Sight**: All Soldiers will qualify on the 10-meter and day transition record course. **Machine Gun Optic (MGO)**: Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(2) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(3) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day course with one modification; the timed target exposures are increased by two seconds for each target presented.

**Table 11–19**  
**M240B MG Qualification (FM 3–22.68)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Iron Sight Qualification</b>				
<b>table I</b>				
10 M Zero/Practice	Ball/EST	A143	185	2
10 M Record <sup>1</sup>	Ball/EST	A143	91	2
<b>table II</b>				
Iron Sight/MGO Transition Zero <sup>1</sup>	Mix	A131	28	2
Iron Sight/MGO Transition Practice	Mix	A131	154	2
Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A131	154	2
<b>Thermal Weapon Sight Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A131	36	2
TWS Night Field Fire III	Mix	A131	154	2
table VI TWS Practice	Mix	A131	154	2
table VI TWS Record <sup>1</sup>	Mix	A131	154	2
<b>Infrared Aiming Light Qualification</b>				
IR Zero <sup>1</sup>	Mix	A131	18	2
IR Night Field Fire III	Mix	A131	154	2
table VI IR Practice	Mix	A131	154	2
table VI IR Record <sup>1</sup>	Mix	A131	154	2
<b>Total Rounds</b>				
Iron Sight Qualification	Ball/EST	A143	552/0	
Iron Sight Qualification	Mix	A131	672	
MGO Qualification	Mix	A131	672	
TWS Qualification	Mix	A131	996	
IR Qualification	Mix	A131	960	

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–20**  
**M240B Collective Training**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX <sup>1</sup>	Blank/Mix	A111/A131	400/600 <sup>1</sup>	2
Sqd/Plt LFX	Blank/Mix	A111/A131	600/800	6
CALFEX <sup>1</sup>	Blank/Mix	A111/A131	400/600 <sup>1</sup>	2
Co FTX/DFT <sup>1</sup>	Blank/Mix	A111/A131	400/600 <sup>1</sup>	2
Bn FTX	Blank	A111	600	2
EXEVAL <sup>1</sup>	Blank/Mix	A111/A131	400/800 <sup>1</sup>	1
Major Exercise <sup>1</sup>	Blank/Mix	A111/A131	400/600 <sup>1</sup>	1
JRX	Blank	A111	532	1
BILAT	Blank	A111	534	2
OPALERT Preparation (G/AG)	Ball	A143	72	1
EDRE	Blank/Mix	A111/A131	400/800	1
<b>Total Rounds</b>				
	Blank	A111	10000	
	Mix	A131	10600	
	Ball	A143	72	

Notes:

<sup>1</sup> Ranger live fire exercises will consist of a day blank fire rehearsal, a day live fire, a night blank fire rehearsal, and a night live fire, all of which must be executed to standards.

k. *M2 HB Machine Gun.* (See table 11–21 & 11–22) All M2 Machine Gunners and two AGs will qualify every six months. Qualification consists of 10 Meter record course, transition range course (FM 3–23.65) and firing at night for record. Recommended training strategies and ammunition requirements are provided below.

(1) Day requirements: Qualify on Day Qualification table II.

(2) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 11–21**  
**M2 .50 Cal Qualification (FM 3–23.65)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Day Qualification</b>				
table I Day Zero/Practice	Mix	A557	140	2
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2
<b>Night Qualification AN/PEQ–2A</b>				
Night Zero <sup>1</sup>	Mix	A557	26	2
table III Night Practice	Mix	A557	126	2
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2
<b>AN/PAS–13 HTWS</b>				
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2
table III Night Practice	Mix	A557	126	2
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2
<b>Total Rounds Day</b>				
table I & II	Mix	A557	560	

**Table 11–21**  
**M2 .50 Cal Qualification (FM 3–23.65)—Continued**

Total Rounds Night			
AN/PEQ–2A Qualification	Mix	A557	556
AN/PAS–13 HTWS Qualification	Mix	A557	576

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–22**  
**M2HB Collective Training<sup>2</sup>**

Event	Type	DODIC	Rounds	CAT I Freq
Sqd/Plt FTX	Blank	A598	400	2
Sqd/Plt LFX	Mix/Blank	A557/A598	1200 <sup>1</sup> /200	2
CALFEX	Mix/Blank	A557/A598	400 <sup>1</sup> /100	1
Bn FTX/DFT	Blank	A598	200	1
Major Exercises	Blank	A598	200	1
JRX	Blank	A598	256	1
BILAT	Mix/Blank	A557/A598	534 <sup>1</sup> /134	2
OPALERT Preparation (G/AG)	Ball	A555	311	1
Total Rounds				
	Ball	A555	311	
	Mix	A557	3334	
	Blank	A598	2000	

Notes:

<sup>1</sup> Ranger live fire exercises will consists of a day blank fire rehearsal, a day live fire, a night blank fire rehearsal, and a night live fire, all of which must be executed to standard.

<sup>2</sup> in accordance with Commanders guidance 1 Rifle Company will qualify every six months and 2 Rifle Companies will qualify every 12 months. Change to RTC 350–1 is pending.

1. *MK–19 Grenade Machine Gun.* ( See table 11–23 & 11–24) All Rangers assigned to the primary Company as MK–19 Gunner and two Assistant Gunner will qualify every six months in accordance with FM 3–22.27. Recommended training strategies and ammunition requirements are provided below.

(1) CAT II: in accordance with Commanders guidance, the remaining 2 companies will qualify MK–19 Gunner and Assistant Gunner every 12 months. See Note 2 listed below.

(2) Day requirements: Qualify on Day Qualification table II.

(3) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned, AN/PEQ–2A and AN/PAS–13 HTWS.

**Table 11–23**  
**MK 19 GMG Qualifications (FM 3–22.27)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADDS			4
Day Qualification				
table I Day Practice	TP	B584	62	2
table II Day Qualification <sup>1</sup>	TP	B584	62	2
Night Qualification AN/PEQ–2A				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2



**Table 11–23**  
**MK 19 GMG Qualifications (FM 3–22.27)—Continued**

AN/PAS–13				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2
Total Rounds Day				
table I & II	TP	B584	248	
Total Rounds Night <sup>2</sup>				
AN/PEQ–2A	TP	B584	248	
AN/PAS–13	TP	B584	248	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Night qualification is required for each NVD assigned.

**Table 11–24**  
**MK–19 Collective Training<sup>2</sup>**

Event	Type	DODIC	Rounds	CAT I only
Sqd/Plt LFX <sup>1</sup>	TP	B584	60	2
CALFEX	TP	B584	60	2
EXEVAL <sup>1</sup>	HE	B571	96 <sup>1</sup>	1
Major Exercise <sup>1</sup>	HE	B571	96 <sup>1</sup>	1
JRX	TP	B584	60	1
BILAT <sup>1</sup>	HE	B571	96 <sup>1</sup>	2
OPALERT Preparation (G/AG)	TP	B584	7	1
EDRE <sup>1</sup>	HE	B571	96 <sup>1</sup>	1
Total Rounds				
	TP	B584	307	
	HE	B571	480 <sup>1</sup>	

Notes:

<sup>1</sup> HE Fired on LFXs (2 cans of 48 rounds per gun).

<sup>2</sup> in accordance with Commander Guidance 1 Rifle Company will qualify every six months and 2 Rifle Companies will qualify every 12 months. Change to RTC 350–1 is pending.

*m. Mortars - 60mm, 81mm, and 120mm.* ( See table 11–25 thru 11–27) All Rangers assigned to the mortar platoon will successfully complete applicable portions of the Regimental Mortar Certification Program (RMCP) every six months (the RMCP includes the Gunner’s Test in accordance with FM 23–90 for all three mortar systems for members of mortar squads). Each mortar platoon will successfully fire all mortar live fire missions identified in ARTEP 7–90–MTP for each system every three months. These missions will be fired as either a mortar platoon or mortar section. Additionally, each mortar platoon will undergo an externally evaluated mortar evaluation (MORTEP) every 12 months. These MORTEPs will be conducted in place of one of the quarterly system LFXs and will involve all three mortar systems. Additional mortar training guidance is contained in Regimental Training Circular 350–1. Training strategies for the Ranger Battalion Mortar Platoons are provided below.

**Table 11–25**  
**60 MM Mortar Collective Training**

Event	Type	DODIC	Rounds	Freq
<b>60mm Mortar</b>				
Crew Drill/FDC Training				12
<b>Regimental Mortar Certification<sup>3</sup></b>				
Program (RMCP) <sup>4</sup>				2
Qualification/Sustainment LFX <sup>1,2,4</sup>	HE/WP/Illum/IR	BA17/BA14/B647/BA04	30/3/1.5/1.5	4
CALFEX	HE/WP/Illum/IR	B643/B646/B647/BA04	6/0.5/0.5/3	4
FRTR Training <sup>4</sup>	FRTR	BA15	13	4
<b>Total Rounds Required Per Tube</b>				
	HE	BA17	144	
	WP	BA14	14	
	Illum	B647	8	
	IR	BA04	18	
	FRTR	BA15	52	

Notes:

<sup>1</sup> Under the Arms Room Concept for the Ranger Regiment Mortar Platoons, each Ranger Battalion maintains eight M224 60mm Mortars.

<sup>2</sup> Qualification /Sustainment LFXs are required to validate crew drill and to ensure RTC 350–1 requirement of one LFX every three months is met.

<sup>3</sup> Mortar platoon ARTEP (MORTEP) is an annual requirement and will be externally evaluated as a MORTEP in accordance with ARTEP 7–90–MTP.

<sup>4</sup> Indicates Standard.

**Table 11–26**  
**81MM Mortar Collective Training <sup>1</sup>**

Event	Type	DODIC	Rounds	Freq
<b>81mm Mortar</b>				
Crew Drill/FDC Training				12
<b>Regimental Mortar Certification<sup>3</sup></b>				
Program (RMCP) <sup>5</sup>				2
Qualification/Sustainment LFX <sup>2,3,5</sup>	HE/WP/Illum/IR	C869/C870/C871/C484	28/3/3/3	4
CALFEX	HE/WP/Illum/IR	C869/C870/C871/C484	12/1.5/1.5/5	4
FRTR Training <sup>4</sup>	FRTR	C875	120	4
<b>Total Rounds Required Per Tube</b>				
	HE	C869	160	
	WP	C870	18	
	Illum	C871	18	
	IR	C484	18	
	FRTR	C875	480	

Notes:

<sup>1</sup> 1. Under the Arms Room Concept for the Ranger Regiment Mortar Platoons, each Ranger Battalion maintains four M252 81mm Mortars.

<sup>2</sup> 2. Qualification/Sustainment LFXs are required to validate crew drill and to ensure RTC 350–1 requirement of one LFX every three months is met.

<sup>3</sup> 3. Mortar platoon ARTEP (MORTEP) is an annual requirement and will be externally evaluated as a MORTEP in accordance with ARTEP 7–90–MTP.

<sup>4</sup> 4. Missions will be fired to standard with FRTR before live firing.

<sup>5</sup> 5. Indicates Standard.

**Table 11–27**  
**120 MM Mortar Collective Training<sup>1</sup>**

Event	120mm				81mm			Freq
	Type	HE <sup>2</sup>	FRTR	WP	IR Illum	HE	Illum	
<b>DODIC</b>		C623	CA09	CA03	CA07	C256	C871	C875
120mm Mortar								
Crew Drill/FDC Training								12
<b>Regimental Mortar Certification</b>								
Program (RMCP) <sup>6</sup>								2
Qualification/Sustainment LFX <sup>3,4,6</sup>		9	12	3	1.5	8	1.5	4
CALFEX		10		1.5	2.5			4
FRTR Training <sup>5</sup>								141
<b>Total Rounds Required Per Tube</b>		76	48	18	16	32	6	564

Notes:

<sup>1</sup> 1. Under the Arms Room Concept for the Ranger Regiment Mortar Platoons, each Ranger Battalion maintains four (M120) 120mm & four (M252) 81mm Mortars.

<sup>2</sup> 2. The C788 120mm HE may also be used with the M120 ground mounted mortar.

<sup>3</sup> 3. Qualification/Sustainment LFXs are required to validate crew drill and to ensure RTC 350–1 requirement of one LFX quarterly is met.

<sup>4</sup> 4. Mortar platoon ARTEP (MORTEP) is an annual requirement and will be externally evaluated as a MORTEP in accordance with ARTEP 7–90–MTP.

<sup>5</sup> 5. Identifies the total FRTR ammunition requirements for annual training. Missions will be fired to standard with FRTR before live firing.

<sup>6</sup> 6. Indicates Standard.

*n. Forward Observer (FO).* All assigned Ranger FO teams must adjust the three missions identified in table 2–19 in accordance with Regimental TC 350–1 every six months.

(1) Recommended training strategies and ammunition requirements are provided in tables 11–28 and 11–29.

(2) Ammunition Request: Ammunition Managers should request the proper amount of 105mm and or 155mm ammunition during initial authorization submission. A combination of both may be submitted during initial authorization requests.

**Table 11–28**  
**Forward Observer Collective Training <sup>1</sup> (105 MM Artillery Ammunition)**

Event	Type	DODIC	Rounds	Freq
TSFO				12
Adjust Fire	HE	C445	5	2
Immediate Suppression	HE	C445	2	2
Coordinated Illumination	HE/Illum	C445/C449	5/10	2
Quick Smoke	WP/SMK	C454/C479	2/6	2
Fire for Effect, TOT or AMC (SEAD)	HE	C445	2	2
Precision Registration	HE	C445	8	2
Immediate Smoke	WP	C454	2	2
Adjust Fire (Mark for CAS)	HE/WP	C445/C454	2/1	2
Adjust FPF	HE	C445	12	1
Adjust Fire (Simultaneous Target Engagement)	HE	C445	12	2
FFE, Priority Target	HE	C445	2	2
<b>Total Rounds</b>				
	HE	C445	88	
	WP	C454	10	
	SMK	C479	12	

**Table 11–28**  
**Forward Observer Collective Training<sup>1</sup> (105 MM Artillery Ammunition)—Continued**

	Illum	C449	20
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Notes:

<sup>1</sup> 1. Thirty-two CMF 13F Rangers are assigned to each of the three Ranger Battalions and six CMF 13F Rangers are assigned to the Regimental Fire Support Element. All assigned 13F Rangers will accomplish the task above.

**Table 11–29**  
**Forward Observer Collective Training<sup>2</sup>**

Event	HE	WP	SMK	Illum	MAC CHG	Freq
155mm Artillery Ammunition	D544	D550	D528	D505	DA12	
TSFO						12
Adjust Fire	5 <sup>5</sup>				5	1
Immediate Suppression	2 <sup>5</sup>				2	1
Coordinated Illumination	5 <sup>5</sup>			10 <sup>4</sup>	15	1
Quick Smoke		2 <sup>3</sup>	6 <sup>4</sup>		8	1
Fire for Effect, TOT or AMC (SEAD)	2 <sup>5</sup>				2	1
Precision Registration	8 <sup>5</sup>				8	1
Immediate Smoke		2 <sup>3</sup>			2	0
Adjust Fire (Mark for CAS)	2 <sup>5</sup>	1 <sup>3</sup>			3	1
Adjust FPF	12 <sup>5</sup>				12	1
Adjust Fire, (Simultaneous Target Engagement)	12 <sup>5</sup>				12	0
FFE, Priority Target	2 <sup>5</sup>				2	1
<b>Total Rounds</b>	<b>38<sup>5,6</sup></b>	<b>3<sup>3,6</sup></b>	<b>6<sup>4,6</sup></b>	<b>10<sup>4,6</sup></b>	<b>57</b>	

Notes:

<sup>1</sup> Thirty-two CMF 13F Rangers are assigned to each of the three Ranger Battalions and six CMF 13F Rangers are assigned to the Regimental Fire Support Element. All assigned 13F Rangers will accomplish the task above.

<sup>2</sup> A RTC 350–1 requirement.

<sup>3</sup> Requires N335 or N340 Fuze.

<sup>4</sup> Requires N285 Fuze.

<sup>5</sup> Requires N335, 340, N286, N464 Fuze.

<sup>6</sup> All rounds require 1 N523 Primer. An additional 10 percent is needed for misfire procedures.

*o. Pyrotechnics.* ( See table 11–30) table listed below for annual pyrotechnic requirements.

**Table 11–30**  
**Pyrotechnic Requirements**

Freq	6	2	1	1	4	4	1			
Type	DODIC	Sqd Plt FTX	Sqd Plt LFX	CALFEX	Co/ Bn DFT	EX EVAL	JRX/ BILAT	AMT	RGR HQ	Bn TOT
HG SMK GRN	G940	20	15	15	15	15	15		50	300
HG SMK YEL	G945	20	15	15	15	15	15		50	300
HG SMK RED	G950	2	2	2	2	2	2		8	40
HG SMK VIO	G955	15	15	10	10	10	10		50	250
HG SMK CS	G963	2	2	0	0	2	1		10	32
HG SMK HC	G982	30	30	30	25	25	25		50	500
RIOT CON AGENT CS–2 POWDER	K768	0	0	0	0	5	0		0	5

**Table 11–30**  
**Pyrotechnic Requirements—Continued**

SMK POT FIT	K511	1	1	2	1	1	2	2	8	38
KIT FLR RED	L116	20	20	20	20	20	20		30	350
KIT FLR MIX	L117	20	20	20	20	20	20		30	350
SMK MARINE	L275	25	25	25	25	25	25		10	410
SIG Illum GRN PARA	L305	25	25	25	25	25	25		50	450
SIG Illum RED PARA	L306	25	25	25	25	25	25		50	450
SIG Illum WHT PARA	L307	25	25	25	25	25	25		50	450
SIG Illum RED STAR	L311	25	25	25	25	25	25		50	450
SIG Illum WHT STAR	L312	25	25	25	25	25	25		50	450
SIG Illum GRN	L314	25	25	25	25	25	25		50	450
SIM PROJ AIRBURST	L366	50	50	50	50	50	50		20	820
FLR SURF TRIP	L495	25	25	25	25	25	25		20	420
SIM ARTY FLSH	L596	25	25	25	25	25	25	25	15	515
SIM BOOBY TRAP FLSH	L598	25	25	25	25	25	25	25	15	515
SIM BOOBY TRAP ILL	L599	20	20	20	20	20	20		15	335
SIM BOOBY TRAP WHST	L600	15	15	15	15	15	15		60	300
SIM HAND GRN	L601	50	50	50	50	50	50		20	1020

*p. M18A1/A2 Claymore Mine.* ( See table 11–31 and 11–32 ) All Rangers must emplace, arm and disarm one inert Claymore Mine (FM 23–23) every six months. Additionally, each rifle/weapons squad will incorporate three live Claymore Mines in conjunction with a LFX. Recommended training strategies and ammunition requirements are provided below.

**Table 11–31**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	DODIC	Rounds	Freq	
				CAT I	CAT II
Employment Instruction/Qualification <sup>1</sup>	Inert	K139	N/A	4	1

**No live rounds required for qualification**

Notes:

<sup>1</sup> Indicates Standard.

**Table 11–32**  
**M18A1 Claymore Mine Collective Training**

Event	Type	DODIC	Rounds	Freq
<b>Collective Training</b>				
Sqd/Plt FTX	Inert	K139	1	2
Sqd/Plt LFX	M18A1/A2	K143	3 <sup>1</sup>	6
CALFEX	M18A1/A2	K143	1 <sup>1</sup>	2
Co FTX/DFT	M18A1/A2	K143	3 <sup>1</sup>	1
Bn FTX	Inert	K139	1	3
EXEVAL	M18A1/A2	K143	3 <sup>1</sup>	3
JRX	M18A1/A2	K143	1 <sup>1</sup>	1

**Table 11–32**  
**M18A1 Claymore Mine Collective Training—Continued**

Total Rounds		
M18A1/A2	K143	33 <sup>1</sup>
M18A1/A2	K143	1089 <sup>2</sup>

Notes:

<sup>1</sup> Mines per squad (x 33 Squads).

<sup>2</sup> Rounds required per Battalion.

*q. Mines.*

(1) The annual ammo requirements for demolition systems are given in table 11–33.

(2) Antitank Mine Standard.

(a) One-Hundred percent of the Ranger squad members must perform the individual mine warfare tasks listed below every six months. Training will be accomplished with inert devices. Live training will be conducted every 12 months.

1. 051–192–1117/051–192–1118 Install/Remove the M21 Antitank Mine.
2. 051–192–1101/051–192–1102 Install/Remove M142 Multi Purpose Firing Device.
3. 071–325–4425/071–325–4426 Install/Remove M18A1 Claymore Antipersonnel Mine.
4. Install/Remove M4 Selectable Lightweight Attack Munitions (SLAM).
5. 05–4–D0014 Employ Anti-personnel Obstacle Breaching System (APOBS).

(b) All Ranger squads/platoons must perform the unit mine warfare tasks listed below every six months. Training will be accomplished with inert devices.

1. 051–192–3032 Direct Installation/Removal of a Hasty Protective Minefield.
2. 05–3–0118 Conduct Minesweeping Operations.
3. 5–3–70043 Breach Obstacles.
4. 051–192–2030 Install and Operate the MOPMS.
5. 051–192–2031 Operate the RCU for the MOPMS.
6. 052–192–1232 Prepare a MOPMS for Operation in the Hardwired Mode.

(3) Demolitions Standard.

(a) Each Ranger Rifle Squad must have a basic demolitions team which must perform the basic demolitions tasks live as listed below in accordance with Regimental Breaching Guide 350–19 every six months. Basic Demolition Task List: table I

1. Task 1: Construct a Non-electric Initiating Assembly w/Modernized Demolition Initiators (MDI).
2. Task 2: Prime Explosives Using Modernized Demolition Initiators (MDI).
3. Task 3: Construct a Dual-Firing System with Modernized Demolition Initiators (MDI)
4. Task 4: Construct Demolition Firing System.
5. Task 5: Construct Demolition Initiating Sets.
6. Task 6: Prime Military Explosives.
7. Task 7: Prime Non-Standard Explosives.
8. Task 8: Construct an Electric Initiating/Detonating Assembly.
9. Task 9: Install and Operate Remote Activation Munitions System (RAMS).
10. Task 10: Identify Characteristics of Military Demolitions and Explosives.
11. Task 11: Clear a Misfire.

(b) Explosive Breaching Charge Task List: table III

1. Task 1: Construct and Employ a Flex Linear Charge.
2. Task 2: Construct and Employ a Rigid Linear Charge.
3. Task 3: Construct and Employ a Wall Breach Charge.
4. Task 4: Clear a Footpath through an Obstacle with a Bangalore Torpedo.

(c) Each Ranger rifle platoon must have an advanced demolition team, which must perform the advanced demolition tasks as listed below, in accordance with the Regimental Breaching Guide, every 12 months. Advanced Demolition Task List: table IV:

1. Task 1: Calculate Explosive Requirements for Road Craters.
2. Task 2: Place Cratering Charges.
3. Task 3: Calculate Steel Cutting Charges.
4. Task 4: Place Steel-Cutting Charges.
5. Task 5: Calculate Timber-Cutting Charges.

6. Task 6: Place Timber-Cutting Charges.
7. Task 7: Calculate Breaching Charges.
8. Task 8: Place Breaching Charges.
9. Task 9: Construct and Employ Improvised Charges.

**Table 11–33**  
**Annual Ammunition Requirement for Ranger Demolition Teams<sup>1</sup>**

Item	DODIC	Rounds per Team	Freq	Annual Requirement
Shape Charge (15 or 40lb)	M420/M421		1	9
Cratering Charge (40lb)	M039		1	27
Selectable Lightweight Attack Munition (SLAM) <sup>6</sup>	MM15		1	270
M5 Firing Device	M627	2	1	54
M142 Multipurpose Firing Device	ML03	2	1	54
M1 Firing Device	M630	2	1	54
Bangalore Torpedo <sup>2</sup>	M028	2	1	27
Demolitions C–4 1 ¼ lb <sup>3</sup>	M023	101	1	2727
Detonating Cord (ft)	M456	336	1.5 <sup>4</sup>	13608
Time Fuse (ft)	M670	160	1.5 <sup>4</sup>	6480
Electric Blasting Cap	M130	62	1	1674
Non-electric Blasting Cap	M131	42	1	1134
Igniter, Time Blasting Fuse M60 <sup>5</sup>	MN08	56	1	1662 <sup>5</sup>
Holder, Cap Blasting and Shock Tube	ML45		1	300
Cap Blasting, Non-electric, 30 ft (ea) Shock Tube	ML47	8	1	216
Cap Blasting, Non-electric, 500 ft (ea) Shock Tube	MN88	8	1	216
Non-Electric Booster (10ft) M151	MN68	8	1	216
Non-Electric Booster (30ft) M152	MN69	8	1	216
Cap, Blasting, Non-Electric, Delay 7.5ft (ea)	MN06	8	1	216

Notes:

<sup>1</sup> Each platoon will have three demolition teams for a total of 27 teams per Battalion.

<sup>2</sup> Five sections of the Bangalore Kit will be used for each iteration.

<sup>3</sup> C4 and TNT can be substituted for each other, on a pound-for-pound basis.

<sup>4</sup> Increased frequency to account for demolition team sustainment training conducted during LFXs as well as Advanced MOUT Training.

<sup>5</sup> Additional fuse igniters (10 percent) are required for rehearsals and test burns.

<sup>6</sup> USASOC procurement item.

*r. Stingers.* ( See table 11–34 )MOS 11B will conduct missile live fire training every 12 months. Missile live-fire training is to be conducted at company level or higher. Recommended training strategies and ammunition requirements are provided below.

**Table 11–34**  
**Stinger Collective Training**

Event	Type	DODIC	Rounds	Freq
Stinger Missile System				
Dry Fire				
Live Fire Company	Live/Launch Sim	PL95/PL85	1/25	1
Total Bn			3/75	

s. *Javelins*. ( See table 11–35 & 11–36 ) Ninety percent of the designated Javelin gunners and assistants will have verified Javelin gunnery by scoring 75 percent on each BST sustainment Javelin exercise (FM 3–22.37) every three months. Each Ranger Javelin Teams will participate in a LFX to standard (ARTEP 7–8 MTP) every three months. All designated Javelin gunners will participate in a platoon external evaluation to standard (ARTEP 7–8 MTP) as part of a company or higher FTX every six months. All designated Javelin gunners will have received a GO on all Gunner Skill Test task (FM 3–22.37) within the past six months. Recommended training strategies and ammunition requirements are provided below.

**Table 11–35**  
**Javelin Qualification<sup>2</sup>**

Event	Rounds	CAT I
Weapon Training	0	12
Gunnery Sustainment	0	12
Advanced Tracking	0	6
GST Verification/Qualification <sup>1</sup>	0	4
<b>Total Rounds per Gunner</b>		<b>0</b>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> No training ammunition is required for any Javelin event. Javelin participates in Sqd/Plt LFX and CALFEX using MILES and the laser target interface device.

**Table 11–36**  
**JAVELIN Collective Training<sup>1</sup>**

Event	Type	DODIC	Rounds	Freq
				12
Weapon Training				
Gunnery Sustainment				12
Advance Tracking				6
Verification Qualification				4
SQD/PLT/CO/FTX/STX				8
BN FTX				2
EVEVAL (ARTEP)				2
SQD/PLT/LFX <sup>2</sup>				6
CALFEX/ Live Missile <sup>2</sup>				1
Total Live Missile per Gunner				0
Annual AT LFX <sup>3,4</sup>	Live HE	PL34/PL53	3	1

Notes:

<sup>1</sup> No training Ammunition requirement for any Javelin event other than live fire.

<sup>2</sup> Javelin participates in SQD/PLT LFX and CALFEX using MILES and the laser target interface device.

<sup>3</sup> Live missile authorizations are 3 per ranger Company.

<sup>4</sup> As missile become available.



#### 11–4. Collective Regimental Training Requirements Task Remarks

- a. *Squad/Platoon LFX*: (See table 11–37) Each Ranger battalion is required to conduct a LFX every six weeks.
- b. *CALFEX*: Each Ranger battalion participates in a minimum of two CALFEXs every 12 months. CALFEXs are extensive live fire exercises that integrate all weapon systems into the operation.
- c. *JMRC/JRTC/NTC*: Each Ranger battalion participates in one JMRC, JRTC, or NTC rotation at least every six months.
- d. *Major Exercise*: Each Ranger battalion participates in one major exercise every 12 months (for example: Bright Star, and Cobra Gold).
- e. *Joint Readiness Exercise (JRX)*: JRXs involve one or more Ranger battalions and aviation assets from SOAR and 16th SOW. JRXs are conducted every three months, with one battalion conducting two and two battalions conducting one each.
- f. *Bilateral Training (BILAT)*: This training is conducted at a smaller scale than a JRX. BILATs are used to enhance proficiency of special operations skills of both Rangers and the supporting air unit. BILATs are conducted eight times per year, with one battalion conducting four and two battalions conducting two each.
- g. *Advance MOUT Training*. Advance MOUT Training is the Regiment's MOUT training program. Each Ranger Battalion will participate in an intensive MOUT training every six months, which includes a semi-annual "Train the Trainer" requirement. Each Rifle Company conducts this training.
- h. *OPALERT*: OPALERT assumption occurs every three months. One Ranger Battalion assumes OPALERT two times, while two Ranger Battalions assume OPALERT one time each.
- i. *EDRE*: The Regimental EDRE program requires at least one OPALERT rifle company be evaluated per OPALERT cycle.
- j. *PLT EXEVAL*: Each Ranger Platoon will participate in one External Evaluation every 12 months.
- k. *EIB/EFMB/CONSKILLS*: Each Ranger Battalion will conduct EIB, EFMB, and CONSKILLS every six months.
- l. *Urban Operations (UO) Training*. The Combined Arms MOUT Task Force UO training strategy is the only approved UO training strategy. The training strategy and resource requirements are located in TC 90–1. Resourcing comes from the collective training ammunition resourced for each weapon. UO training is not a requirement; however commanders are strongly encouraged to prepare their Soldiers for UO by executing the strategy.

**Table 11–37**  
**UO Training Munitions Expressed in Battalion Lots<sup>1,2</sup>**

Type	DODIC	RNG BN
GREM (Live)	GG11	50
5.56mm for GREM-(TP)	G841	150
M84 Stun Grenade (Fuse)	GG19	780
M84 Stun Grenade (Body)	GG18	78
5.56mm Marker Blue (per weapon)	AB09	140
5.56mm Marker Red (per weapon)	AB10	140
5.56mm Marker Blue Linked (per weapon)	AB16	230
5.56mm Marker Red Linked (per weapon)	AB17	230
Smoke Pot M4A2	K511	12

Notes:

<sup>1</sup> Ammunition expressed in battalion lots except where noted.

## Chapter 12

### Special Forces

#### 12–1. Description

a. This chapter provides weapon standards, training strategies and resource requirements for Special Forces (SF) units equipped with both crew-served weapons and individual weapons systems. Crew served weapons systems include; Ground Mobility Vehicles (GMV), Anti-Armor Weapons (AT–4), Mortars (60mm, 81mm), Machine Guns (M60/M240B MMG, M2–HB HMG, MK–19 GMG). Individual Weapons include (M4 Carbine, M24 Sniper Rifle, M249 LMG/AR, M 203 Grenade Launcher, 9mm Pistol, Hand Grenade, M18A1/A2 Claymore Mine, Shotgun and Non-standard Weapons Systems). Also included is the .50 Cal Long Range Sniper Rifle, and tables for Special

Operations Team-Alpha (SOT-A) and Chemical Recon Detachment (CRD) Teams assigned to the Special Forces Group and theater designated SF units with a Close Quarter Combat mission. The training strategies provided have been specifically designed for each weapon system and/or unit. Each program contains the standard, a strategy and ammunition requirements table, which outlines the training sequence and includes suggested frequencies of live fire.

*b.* The training strategies for each weapon system are outlined in charts that accompany the ammunition tables. These strategies show the intended progression of training events, the TADSS and/ or ammunition to support the strategy. The objective is to assist field commanders in attaining and sustaining training standards. These programs provide the commander the flexibility to use training resources to ensure required levels of weapon proficiency are developed in all units.

## **12-2. Individual Weapons Training, Requirements and Qualification (Special Forces TADSS).**

*a.* Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-Armor training strategies are wholly reliant on TADSS for qualification. Small arms TADSS are listed in Appendix B.

*b.* Javelin Basic Skills Trainer (BST). The BST consists of a student station and an instructor station. It is an indoor/ shipboard training device that can test the gunner's skills in a wide variety of situations. The student station consists of a simulated CLU and Simulated Missile Round (SMR). The instructor station consists of a color video display screen, an 80386-based microcomputer, hard and floppy disk drives, a keyboard, and an air conditioner. The instructor station allows the instructor to view all of the gunner's actions and to create new training exercises. The BST runs engagement exercises that are displayed as computer-generated images in the simulated CLU.

*c.* Javelin Field Tactical Trainer (FTT). The FTT consists of a Simulated Round (SR) and an Instructor Station. The FTT is designed to be used as an outdoor trainer and is equipped with the Multiple Integrated Laser Engagement System (MILES).

*d.* Javelin Missile Simulation Round (MSR). The MSR consists of a sealed launch tube that contains no instruments or circuitry. It simulates the weight and balance of the round and has CLU and BCU connectors. The MSR is used to train gunners how to maintain, handle, and carry the round Javelin Training Devices.

## **12-3. Standards and Strategies for Training**

*a.* Notional training programs and supporting ammunition tables have been developed for each Active and National Guard unit. The strategy for each program is graphically depicted for each system. The standard is stated at the beginning of each program. The individual skill sustainment training strategy is given first, followed by the collective training for the detachment.

*b.* The U.S. Army trains Special Forces Soldiers to perform as a member of a small unit, the SF Operational Detachment Alpha (ODA), in accomplishing their principal missions of Unconventional Warfare, Foreign Internal Defense, Direct Action, Special Reconnaissance, Combating Terrorism, Counter proliferation, and Information Operations. SF missions are dynamic and constantly evolving in response to political-military considerations, technology and other considerations. A change in national security policy, national military strategy, global or regional social structure, or technology may radically alter the manner in which SF Soldiers and units train on its principal missions and collateral activities. The weapons standards, training strategies and resource requirements have been developed to support a fluid and often changing training environment and schedule dictated by short-notice operational deployments and training exercises in OCONUS locations.

*c.* The training strategies for sustaining SF Soldier qualification in assigned weapons is based on the experience levels of SF Soldiers, all NCOs who have an average of 12-15 years of service. Individual weapons training normally consists of advanced shooting skills, rather than the basic marksmanship techniques outlined in training references. Cross training and multiple personnel qualified on the same weapons systems is a primary means of providing a SF ODA flexibility and increased survivability. The SF Soldier maintains thorough familiarity with current and obsolete U.S. weapons and foreign weapons that equip the majority of foreign armies and militia-type forces throughout the world. The SF unit provides individual, unit and "train-the-trainer" instruction to pro-U.S. foreign military and militia forces. LFXs define the "train as you fight" approach to training and readiness. It builds confidence in the SF ODA/ ODBs and Soldier. The "Crawl, Walk, Run" methodology is employed in all phases of SF training, but the cohesiveness SF unit and the experience of the SF Soldier determine the time spent on the crawl and walk phases of any training exercise. Use of training devices, blank fire, sub caliber, SRTA and paintball for crawl and walk phases is encouraged, but there is no substitute for full caliber live fire training. The battalion and company FTX in an SF unit further accentuates the decentralized and often independent operations of the SF ODB and ODA.

*d.* The programs were developed to give the commander the flexibility to adjust training based on unit skill. The strategies are also based on the assumption that most training events will be evenly spaced throughout the training year, even though OPTEMPO may not allow a commander to conduct all live fire events in a given training year. In this case, not all detachments would be able to train at a regular interval based on months, quarters or in some cases the training year.

(1) Pistol M9. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–1. NBC and night firing is integrated into the basic qualification requirements.

(a) ACTIVE ARMY (ODA/ODB) Standard. All Soldiers assigned a pistol will meet the individual requirements to standard with the weapon every six months. Individual requirements consist of qualifying on the Combat Pistol Qualification Course (FM 3–23.35).

(b) ACTIVE ARMY (Headquarters and Headquarters Company (HHC) / Group Support Battalion (GSB)) Standard. All Soldiers assigned a pistol will meet the individual requirements to standard with the weapon every six months. Individual requirements consist of qualifying on the Combat Pistol Qualification Course (FM 3–23.35).

(c) NATIONAL GUARD (ODA/ODB) Standard. All Soldiers assigned a pistol will meet the individual requirements to standard with the weapon every 12 months. Individual requirements consist of qualifying on the Combat Pistol Qualification Course (FM 3–23.35).

(d) NATIONAL GUARD (HHC/GSB) Standard. All Soldiers assigned a pistol will meet the individual requirements to standard with the weapon every 12 months. Individual requirements consist of qualifying on the Combat Pistol Qualification Course (FM 3–23.35).

**Table 12–1**  
**M9 Pistol Ammunition/Training Strategy (FM 3–23.35)**

Event	Rounds	Type	Freq			
			ODAODB	NG ODAODB	HHC GSB	NG HHC GSB
Preliminary Marksmanship Training			2	1	2	1
Instructional Fire	40	Ball	2	1	2	1
Combat Pistol Qualification course <sup>1,2</sup>	40	Ball	2	1	2	1
CPQC Night/NBC (VI/VII) <sup>1,2</sup>	12	Ball	2	1	2	1
<b>Total Rounds</b>	<b>DODIC</b>	<b>TYPE</b>				
	AA49	Ball	184	92	184	92

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Installations equipped with the EST 2000, Night & NBC Qualification will be conducted on EST 2000.

(2) M16 Rifle/M4 Carbine. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–2. All standards apply to the M16, (M203) rifle and the M4 carbine.

(a) ACTIVE ARMY (ODA/ODB) Standard. All Soldiers assigned a rifle will meet the individual day and night qualification requirements to standard every six months. Individual requirements consist of qualifying on the day record fire course with standard sights and combat optics (if assigned), NBC and the unassisted night record course to standard (FM 3–22.9). And each Soldier will fire the record fire course with each night sight/item of night vision equipment authorized/assigned to that position. Each unit, individually or as part of a larger unit, will participate in a LFX to standard (ARTEP 31–807–30 MTP) every four months.

(b) ACTIVE ARMY (HHC/GSB) Standard. All Soldiers assigned a rifle will have successfully completed day record qualification, NBC qualification and unassisted night qualification requirements every 6 months. And each Soldier will fire the record fire course with each night sight/item of night vision equipment authorized/assigned to that position. Additionally, they will have participated in a company LFX every 12 months.

(c) NATIONAL GUARD (ODA/ODB) Standard. All Soldiers assigned a rifle will meet the individual day and night qualification requirements to standard for the rifle every 12 months. The annual requirement consist of qualifying on the day record fire course with iron sights and combat optic sight (if assigned) NBC and the unassisted night record fire course in accordance with (FM 3–22.9). Each Soldier will fire the record fire course with each night sight/item of night vision equipment authorized/assigned to that position. Each unit, individually or as part of a larger unit, will participate in an LFX to standard (ARTEP 31–807–30 MTP) every 36 months.

(d) NATIONAL GUARD (HHC/GSB) Standard. All Soldiers assigned a rifle will have successfully completed day record qualification, NBC qualification and unassisted night qualification requirements every 12 months. Each Soldier will fire the record fire course with each night sight/item of night vision equipment authorized/assigned to that position. Additionally, they will participate in a company LFX every 36 months.

**Table 12–2**  
**M16 Rifle/M4 Carbine Ammunition/Training Strategy (FM 3–22.9)**

Event	Type	DODIC	RDS	Freq			
				AC		NG	
				ODAODB	HHCGB	ODAODB	HHCGB
Preliminary Marksmanship Instruction				2	2	1	1
Iron Sight Zero <sup>1</sup>	Ball	AA33	18	2	2	1	1
Iron Sight Practice Fire	Ball	AA33	40	2	2	1	1
Iron Sight Record Fire <sup>1</sup>	Ball	AA33	40	2	2	1	1
NBC Practice	Ball	AA33	20	2	2	1	1
NBC Record <sup>1</sup>	Ball	AA33	20	2	2	1	1
Unassisted Night Practice	Ball/ Tracer	AA33/ A063	20/ 10	2	2	1	1
Unassisted Night Record <sup>1</sup>	Ball/ Tracer	AA33/ A063	20/ 10	2	2	1	1
CCO Zero <sup>1,3</sup>	Ball	AA33	18	2	0	1	0
CCO Practice <sup>3</sup>	Ball	AA33	40	2	0	1	0
CCO Record <sup>1,3</sup>	Ball	AA33	40	2	0	1	0
Night Qual TWS <sup>1,3</sup>	Ball	AA33	152	2	0	1	0
Night Qual IR <sup>1,3</sup>	Ball	AA33	134	2	0	1	0
Advanced Skills <sup>2,4</sup>	Ball	AA33	200	1	0	0.5	0
ODA/ODB LFX	Ball/ Blank/ Tracer	AA33/ A080/ A063	190/ 210/ 21	3	0	0.33	0
CO LFX	Ball/ Blank/ Tracer	AA33/ A080/ A063	130/ 120/ 20	0	1	0	0.33
<b>Total Rounds</b>							
COMM pack Ball		AA33		1894	486	725	221
Tracer		A063		103	60	27	27
Blank		A080		630	120	70	40

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> For these events 5.56 SRTA for 5.56 service ammunition if required to fire on alternative course. The M2 bolt assembly is required when using the SRTA and the M261 Rim Fire Adapter (RFA) is required when using .22Cal ammunition. Reference FM 23–9, J.

<sup>3</sup> There are several optics that are available to ODA/ODB such as AN/PEQ–2A, AN/PEQ4, M68–CCO and TWS. Individuals will zero and train on these systems dependent on unit's METT–T.

<sup>4</sup> Advanced skills as per FM 3–22.9.

(3) M203 Grenade Launcher (GL). Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–3. This strategy applies to the Grenade launcher only. All Soldiers assigned this weapon must also meet M16 qualification requirements. NBC firing is integrated with other training events.

(a) ACTIVE ARMY Standard (ODA/ODB). All personnel of ODA/ODBs will conduct instructional fire. Ninety percent Soldiers assigned an M203 GL will meet the individual day and night qualification requirements to standard every six months. Individual requirements consist of day qualifying and night record fire with night vision sight/device (FM 3–22.31). Each ODA will participate in a LFX to standard (ARTEP 31–807–30 MTP) once every four months.

(b) ACTIVE ARMY Standard (HHC/GB) All Soldiers assigned an M203 GL will meet the individual day and night qualification requirements to standard every six months. Individual requirements consist of day qualifying and night record fire with night vision sight/device (FM 3–22.31). Each Gunner will participate in a Company LFX to standard every 12 month.

(c) NATIONAL GUARD Standard (ODA/ODB). All personnel of ODA/ODBs will conduct instructional fire. Ninety percent Soldiers assigned an M203 GL will meet the individual day and night qualification requirements to standard within the past 12 months. Individual requirements consist of day qualifying and night record fire with night

vision sight/device (FM 3–22.31). Each ODA will participate in a LFX to standard (ARTEP 31–807–30 MTP) every 36 months.

(d) NATIONAL GUARD Standard (HHC/GSB) All Soldiers assigned an M203 GL will meet the individual day and night qualification requirements to standard within the past 12 months. Individual requirements consist of day qualifying and night record fire with night vision sight/device (FM 3–22.31). Each Gunner will participate in a Company LFX to standard every 36 months.

**Table 12–3**  
**M203 GL Ammunition/Training Strategy<sup>2, 3</sup> (FM 3–22.31)**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODAODB	HHC/GB	ODAODB	HHC/GB
Preliminary Marksmanship Training					2	1	2
Day Zero	TP	B519	6	2	2	1	1
Day Qual <sup>1</sup>	TP	B519	15	2	2	1	1
Night Zero	TP	B519	3	2	2	1	1
Night Qual <sup>1</sup>	TP	B519	3	2	2	1	1
ODA/ODB LFX <sup>1</sup>	TP/HE	B519/B546	6/6	3	3	.33	0
Co LFX	TP	B519	4	0	0	0	0
HHC/GSB LFX	WSP	B535	5	0	3	0	.33
<b>Total Rounds</b>							
	HE	B546		18	18	2	0
	TP	B519		72	72	29	28
	WSP	B535		0	15	0	2

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Zero Quadrant Sight using 3 TP rounds, Zero Leaf Sight using 3 TP rounds, then qualify in accordance with FM 3–22.31.

<sup>3</sup> Zero Night Vision Devices to Weapon.

(4) M249 Squad Automatic Weapon. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–4. NBC firing is integrated into other training and qualification events.

(a) ACTIVE ARMY Standard (ODA/ODB). All personnel assigned to ODA/ODBs will conduct preliminary marksmanship training and instructional fire every 12 months. All assigned M249 SAW Gunners (2 per ODA/ODB) will meet the individual day and night requirements to standard every six months. Each assigned SAW gunner, as part of an ODA or larger unit, will participate in an LFX to standard (ARTEP 31–807–30 MTP) every four months.

(b) ACTIVE ARMY Standard (HHC/GSB). All assigned M249 AR Gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual requirements to standard every 6 months (FM 2–22.68). Individual requirements consist of qualifying on the 10-meter record course, transition and night transition. Additionally each gunner will participate in a Company LFX every 12 months.

(c) NATIONAL GUARD Standard (ODA/ODB). All personnel assigned to ODA/ODBs will conduct preliminary marksmanship training and instructional fire every 24 months. All assigned M249 gunners (2 per ODA/ODB) will meet the individual day and night requirements to standard every 12 months. Individual requirements consist of day qualifying on the 10-meter, and transition courses, and qualifying with the assigned night sights on the transition course. Each assigned gunner, as part of ODA will participate in a LFX to standard (ARTEP 31–807–30 MTP) every 12 months.

(d) NATIONAL GUARD Standard (HHC/GSB). All assigned M249 Gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual requirements to standard with the every 12 months (FM 3–22.68). Individual requirements consist of qualifying on the 10-meter record course, transition and night transition. Additionally each gunner will participate in a Company LFX every 36 months.

**Table 12–4**  
**M249 AR Ammunition/Training Strategy (FM 3–22.68)<sup>2,4</sup>**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODA ODB	HHC GSB	ODA ODB	HHC GSB
Preliminary Marksmanship			EST	1	1	1	1
Instructional <sup>3</sup>	Mix	A064	100	1	0	0.5	0
<b>Iron Sight Qualification</b>							
<b>Firing table I</b>							
10m Zero <sup>1</sup>	Ball/EST	A062	6	2	2	1	1
10m Practice	Ball/EST	A062	51	2	2	1	1
10m Record <sup>1</sup>	Ball/EST	A062	51	2	2	1	1
<b>Firing table II</b>							
Transition Zero <sup>1</sup>	Mix	A064	12	2	2	1	1
Transition Practice	Mix	A064	66	2	2	1	1
Transition Record <sup>1</sup>	Mix	A064	66	2	2	1	1
<b>Firing table III ST 23–AIMSS</b>							
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064	36	2	2	1	1
TWS Night Field Fire III	Mix	A064	66	2	2	1	1
TWS Limited Visibility Prac	Mix	A064	66	2	2	1	1
TWS Limited Visibility Qual <sup>1</sup>	Mix	A064	66	2	2	1	1
<b>IR Qualification</b>							
IR Zero <sup>1</sup>	Mix	A064	18	2	2	1	1
IR Night Field Fire III	Mix	A064	66	2	2	1	1
IR Practice	Mix	A064	66	2	2	1	1
IR Qualification <sup>1</sup>	Mix	A064	66	2	2	1	1
ODA LFX <sup>5</sup>	Mix/Blank	A064/A075	500/500	3	0	1	0
Company LFX <sup>5</sup>	Mix/Blank	A064/A075	300/300	0	1	0	0.33
<b>Total Rounds Per ODA/ODB or HHC/GSB (Weapon System)<sup>6</sup></b>							
Iron Sight Qualification	Ball/EST	A062		216/0	216/0	108/0	108/0
Iron Sight Qualification	(4&1 Mix)	A064		288	288	144	144
TWS Qualification		A064		468	468	234	234
IR Qualification		A064		432	432	216	216

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA44.

<sup>3</sup> Instructional Fire will only be conducted by Non-Gunners (10 per ODA/8 per ODB).

<sup>4</sup> 4. Two Gunners assigned to an ODA/ODB.

<sup>5</sup> LFX is a collective task for the unit to conduct alone or as part of a larger force (Day and Night Iterations).

<sup>6</sup> HHC/GSB total rounds per Weapons System assigned.

(5) M60/M240B/M249 MMG (ODA /ODB). Training standards by component are given below. Recommended training strategies and ammunition resources are provided in table 12–5 in accordance with FM 3–22.68 and ST 22–AIMSS. NBC firing/qualification has been integrated into other training. Additional Day sight and Night vision device qualification events have been added.

(a) ACTIVE ARMY Standard (ODA /ODB). All personnel assigned on an ODA will conduct preliminary marksmanship training followed by instructional fire every 12 months. All assigned machine gunners (One (1) per ODA/ODB) will meet the individual qualification requirements to standard every six months; assistant machine

gunners (One (1) per ODA/ODB) will meet qualification requirements every 12 months. Individual Day and Night requirements consist of qualifying on the record courses in accordance with appropriate FM. Night requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure. Each assigned machine gun crew, as part of an ODA or larger unit, will participate in a LFX to standard (ARTEP 31–807–30 MTP) once every four months.

(b) ACTIVE ARMY Standard (HHC/GSB). All assigned machine gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual qualification requirements to standard with the machine gun every six months. Individual qualification requirements consist of day and night qualifying on the record courses in accordance with appropriate FM. Gunners will also qualify at night with each night vision sight/device assigned to that system. Night requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure. All of the assigned assistant machine gunners will fire all qualification requirements every 12 months. Additionally each MG crew will participate in one Company LFX every 12 months.

(c) NATIONAL GUARD Standard (ODA and ODB). All personnel assigned on an ODA will conduct preliminary marksmanship training followed by instructional fire every 24 months. All assigned machine gunners (One (1) per ODA/ODB) will meet the individual qualification requirements to standard within the past 12 months; assistant machine gunners (One (1) per ODA/ODB) will meet qualification requirements every 24 months. Individual Day and Night requirements consist of qualifying on the record courses in accordance with appropriate FM. Night requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure. Each assigned machine gun crew, as part of an ODA or larger unit, will participate in a LFX to standard (ARTEP 31–807–30 MTP) every 12 months.

(d) NATIONAL GUARD Standard (HHC/GSB). All assigned machine gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual qualification requirements to standard with the machine gun every 12 months. Individual qualification requirements consist of day and night qualifying on the record courses in accordance with appropriate FM. Gunners will also qualify at night with each night vision sight/device assigned to that system. Night requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day record course with one modification; the timed target exposures are increased by two seconds for each target exposure. All assigned assistant machine gunners will fire the day 10-meter course to standard and all qualification requirements every 24 months. The assigned gunners/assistant gunners will participate in a company FTX to standard every 36 months.

**Table 12–5**  
**M60/M240B/M249 MMG Qualification (FM 3–22.68)**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODA ODB	HHC GSB	ODA ODB	HHC GSB
Preliminary Marksmanship	EST			1	1	1	1
Instructional	Mix	A131/ A064	50	1	0	0.5	0
<b>Iron Sight Qualification</b>							
<b>table I</b>							
10m Zero/Practice	Ball/EST	A143/ A062	185	2	2	1	1
10m Record <sup>1</sup>	Ball/EST	A143/ A062	91	2	2	1	1
<b>table II</b>							
Iron Sight/MGO Transition Zero <sup>1</sup>	Mix	A131/ A064	28	2	2	1	1
Iron Sight/MGO Transition Practice	Mix	A131/ A064	154	2	2	1	1
Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A131/ A064	154	2	2	1	1
<b>Thermal Weapon Sight Qualification</b>							
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A131/ A064	36	2	2	1	1
TWS Night Field Fire III	Mix	A131/ A064	154	2	2	1	1

**Table 12–5**  
**M60/M240B/M249 MMG Qualification (FM 3–22.68)—Continued**

table VI TWS Practice	Mix	A131/ A064	154	2	2	1	1
table VI TWS Record <sup>1</sup>	Mix	A131/ A064	154	2	2	1	1
<b>Infrared Aiming Light Qualification</b>							
IR Zero <sup>1</sup>	Mix	A131/ A064	18	2	2	1	1
IR Night Field Fire III	Mix	A131/ A064	154	2	2	1	1
table VI IR Practice	Mix	A131/ A064	154	2	2	1	1
table VI IR Record <sup>1</sup>	Mix	A131/ A064	154	2	2	1	1
ODA LFX <sup>4</sup>	Mix/ Blank	A131/ A064/ A075	400/ 200	3	0	1	0
Company LFX <sup>4</sup>	Mix/ Blank	A131/ A064/ A075	300/ 300	0	1	0	0.33
<b>Total Rounds Per ODA/ODB or HHC/GSB (Weapon System)<sup>2,3</sup></b>							
Iron Sight Qualification	(Ball/EST)	A143/ A062		552/0	552/0	276/0	276/0
Iron Sight Qualification	(Mix)	A131/ A064		672	672	336	336
MGO Qualification		A131/ A064		672	672	336	336
TWS Qualification		A131/ A064		996	996	498	498
IR Qualification		A131/ A064		960	960	480	480

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Instructional Fire will only be conducted by Non-Gunners (10 per ODA).

<sup>3</sup> One Gunner and One AG assigned to an ODA/ODB.

<sup>4</sup> LFX is a collective task for the unit to conduct alone or as part of a larger force (Day and Night Iterations).

(6) M24 Sniper Rifle. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–6.

(a) ACTIVE ARMY Standard. All Soldiers assigned an M24 sniper rifle (2 per ODA) will fire day qualification with optic and iron sight and night fire with the AN/PVS–10 every three months. Each sniper, as part of an ODA, will participate in an ODA LFX once every four months.

(b) NATIONAL GUARD Standard. All Soldiers assigned an M24 sniper rifle (2 per ODA) will zero with iron sights and scope quarterly and fire qualification and night fire every 12 months. Each sniper, as part of an ODA, will have participated in an LFX to standard every 12 months.

**Table 12–6**  
**M24 Sniper Rifle (ODA Only) Ammunition/Training Strategy<sup>1</sup>**

Event	Type	DODIC	Rounds	Freq	
				AC	NG
Primary Marksmanship Instruction				4	1
<b>Zero</b>					
Iron Sights	Ball	AA11	18	4	1
M3A Scope	Ball	AA11	18	4	1
AN/PVS–10 DNS	Ball	AA11	18	12	1
<b>Sustainment</b>					
Iron Sights	Ball	AA11	45	4	1
M3A Scope	Ball	AA11	45	8	1
AN/PVS–10 DNS	Ball	AA11	45	8	1
<b>Practice and Qualification (25/25)</b>					
Iron Sights	Ball	AA11	50	4	1



**Table 12–6**  
**M24 Sniper Rifle (ODA Only) Ammunition/Training Strategy<sup>1</sup>—Continued**

M3A Scope	Ball	AA11	100	4	1
AN/PVS–10 DNS	Ball	AA11	50	4	1
Company LFX	Ball	AA11	13	3	1
<b>Total Rounds</b>					
Ball		AA11		2099	501

Notes:

<sup>1</sup> There are 2 snipers assigned to each ODA.

(7) Sniper Rifle .50 cal (ODA Only) Standard.( See table 12–7).

(a) ACTIVE ARMY (ODA Only). All Snipers will zero and meet the qualification standards for the iron sight and day optic in accordance with FM 23–10 w/Change 1 and night optic in accordance with TC 23–AIMSS within the past six months.

(b) NATIONAL GUARD (ODA Only). All Snipers will zero and meet the qualification standards for the iron sight and day optic in accordance with FM 3–23.10 and night optic in accordance with TC 23–AIMSS within the past 12 months.

**Table 12–7**  
**M107 Sniper Rifle Qualification (FM 3–23.10)**

Event	Type	Rounds	Freq	
			ODA	ODA NG
Preliminary Marksmanship Training	EST	0	6	4
Zero Iron Sight <sup>1</sup>	Ball	18	1	1
Zero Day Optic <sup>1</sup>	Ball	18	2	1
Zero Day Optic <sup>1</sup>	AP	9	2	1
Zero Day Optic <sup>1</sup>	API	9	2	1
Zero Day Optic <sup>1</sup>	HEAPI	9	1	0
Zero Night Optic <sup>1</sup>	Ball	18	2	1
Zero Night Optic <sup>1</sup>	AP	9	2	1
Zero Night Optic <sup>1</sup>	API	9	2	1
Sustainment Iron Sight	Ball	23	1	1
Sustainment Day Optic	Ball	50	2	1
Sustainment Day Optic	AP	54	2	1
Sustainment Day Optic	API	40	2	1
Sustainment Day Optic	HEAPI	30	1	0
Sustainment Night Optic	Ball	50	2	1
Sustainment Night Optic	AP	54	2	1
Sustainment Night Optic	API	40	2	1
Qual Iron Sight <sup>1</sup>	Ball	25	1	1
Qual Day Optic <sup>1</sup>	Ball	20	2	1
Qual Day Optic <sup>1</sup>	AP	28	2	1
Qual Day Optic <sup>1</sup>	API	22	2	1
Qual Night Optic <sup>1</sup>	Ball	20	2	1
Qual Night Optic <sup>1</sup>	AP	28	2	1
Qual Night Optic <sup>1</sup>	API	22	2	1
<b>Total for Qualification</b>				

**Table 12–7**  
**M107 Sniper Rifle Qualification (FM 3–23.10)—Continued**

DODIC	Type	Rounds
A552	Ball	242
A525	AP	182
A531	API	142
A606	HEAPI	0

Notes:

<sup>1</sup> Indicates Standard.

(8) MK–19 Grenade Machine Gun. The individual day/night sight qualification and collective training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–8. NBC firing is integrated into other training and qualification events.

(a) ACTIVE ARMY Standard (ODA/ODB). Soldiers assigned to an ODA/ODB will have conducted preliminary marksmanship training and instructional fire every 12 months. No additional training required.

(b) ACTIVE ARMY Standard (HHC/GSB). All assigned MK–19 GMG gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual day and night qualification requirements to standard every six months. Individual day qualification requirements for the gunner consist of firing table III (FM 3–22.27). Gunners will also qualify at night with each night vision sight/device assigned to that system. Night qualification consists of table IV. Each assigned MK–19 GMG crew will conduct linear target exercises and, as part of a larger unit, will participate in a LFX to standard (ARTEP 31–807–30 MTP and FM 3–22.27) every 12 months.

(c) NATIONAL GUARD Standard (ODA /ODB). Soldiers assigned to an ODA/ODB will have conducted preliminary marksmanship training and instructional fire every 12 months. No additional training required.

(d) NATIONAL GUARD Standard (HHC/GSB). All assigned MK–19 GMG gunners per Support Company as per weapons density (HHCs and GSB) will meet the individual day and night requirements to standard with the MK–19 GMG every 12 months.. Individual requirements for the gunner consist of firing tables I thru IV as per FM 3–22.27.

**Table 12–8**  
**MK 19 GMG Qualification (FM 3–22.27)<sup>3,4,5,6</sup>**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODAODB	HHCGSB	ODAODB	HHCGSB
Preliminary Marksmanship Training	TADSS			4	4	4	4
Instructional Fire	TP/HE	B584/B542	5/10	1	0	1	0
<b>Day Qualification</b>							
table I Day Practice	TP	B584	62	0	2	0	1
table II Day Qualification <sup>1</sup>	TP	B584	62	0	2	0	1
<b>Night Qualification<sup>2</sup> AN/PEQ–2A</b>							
table III Night Practice	TP	B584	62	0	2	0	1
table IV Night Qualification <sup>1</sup>	TP	B584	62	0	2	0	1
<b>AN/PAS–13</b>							
table III Night Practice	TP	B584	62	0	2	0	1
table IV Night Qualification <sup>1</sup>	TP	B584	62	0	2	0	1
Company LFX		B584	50	0	1	0	.33
<b>Total Rounds</b>							
table I & II	TP	B584		0	248	0	124
AN/PEQ–2A	TP	B584		0	248	0	124

**Table 12–8**  
**MK 19 GMG Qualification (FM 3–22.27)<sup>3,4,5,6</sup>—Continued**

AN/PAS–13	TP	B584	0	248	0	124
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Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Night qualification is required for each NVD assigned.

<sup>3</sup> Commanders determine if tripod or vehicle mounted.

<sup>4</sup> TP round may be substituted by HE rounds with Commanders authority.

<sup>5</sup> Instructional fire will be completed by all ODA/ODB Soldiers (12 per ODA/10 per ODB) and assigned gunners.

<sup>6</sup> HHC and GSB the Weapons Systems are used to calculate total rounds.

(9) M2HB.50 Caliber Heavy Machine gun Training standards by component are given below. Recommended training strategy is not included because only instructional fire will be conducted, however, the ammunition resources are provided in table 12–9.

(a) ACTIVE ARMY Standard (ODA /ODB). Soldiers assigned to an ODA/ODB will conduct preliminary marksmanship training and instructional fire every 12 months. No additional training required.

(b) ACTIVE ARMY Standard (HHC/GSB). The designated machine gunner per Support Company as per weapons density (HHCs and GSB) will fire the 10M Zero/Record and transition course for record every six months. Each designated machinegun crew will participate in a company LFX every 12 months.

(c) NATIONAL GUARD Standard (ODA /ODB). Soldiers assigned to an ODA/ODB will conduct preliminary marksmanship training and instructional fire every 12 months. No additional training required.

(d) NATIONAL GUARD Standard (HHC/GSB). The designated machine gunner per Support Company as per weapons density (HHCs and GSB) will fire the 10M Zero/Record and transition course for record every 12 months. Each designated machinegun crew will participate in a company LFX every 36 months.

**Table 12–9**  
**M2 .50 Cal Qualification (FM 2–22.65)**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODAODB	HHCSBADOODB	HHCSB	
Preliminary Marksmanship Training	TADSS		0	4	4	4	4
Instructional Fire	Mix	A557	100	1	0	1	0
<b>Day Qualification</b>							
table I Day Zero/Practice	Mix	A557	140	0	2	0	1
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	0	2	0	1
<b>Night Qualification AN/PEQ–2A</b>							
Night Zero <sup>1</sup>	Mix	A557	26	0	2	0	1
table III Night Practice	Mix	A557	126	0	2	0	1
table IV Night Qualification <sup>1</sup>	Mix	A557	126	0	2	0	1
<b>AN/PAS–13 HTWS</b>							
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	0	2	0	1
table III Night Practice	Mix	A557	126	0	2	0	1
table IV Night Qualification	Mix	A557	126	0	2	0	1
Company LFX	Mix	A557	200	0	1	0	.33
	Blank	A598	200	0	1	0	.33
<b>Total Rounds</b>							
table I & II	Mix	A557		0	560	0	280
AN/PEQ–2A Qualification	Mix	A557		0	556	0	278

**Table 12-9**  
**M2 .50 Cal Qualification (FM 2-22.65)—Continued**

AN/PAS-13 HTWS Qualification	Mix	A557	0	576	0	288
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Notes:

<sup>1</sup> Indicates Standard.

(10) M1200 Shotgun Standard.(See table 12-10).

(a) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19-95C1-SM.

(b) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 12-10**  
**M1200 Qualification STP 19-95C1-SM**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODAODB	HHCGB	ODAODB	HHCGB
Preliminary Marksmanship Training	TADSS	TADSS	0	4	4	4	4
Instructional Fire	Buck	A011	3	2	2	1	1
Qualification Fire <sup>1</sup>	Buck	A011	10	2	2	1	1
<b>Total Rounds</b>							
				A011	26	26	13

Notes:

<sup>1</sup> Indicates Standard.

(11) AT-4.Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12-11. The Light Antitank Weapon (LAW) may be substituted for AT-4 only if ammunition, sub caliber devices or ranges are not available to support AT-4.

(a) ACTIVE ARMY Standard (ODA and ODB). Twelve Soldiers per ODA and 10 Soldiers per ODB will meet the individual requirements to standard by successfully engaging 9 of 14 targets with the 9mm tracer trainer (tables II and IV of Appendix E, FM 3-23.25) every 12 months.

(b) ACTIVE ARMY Standard (HHC/GSB). Twelve assigned Soldiers from each support company will meet the individual requirements to standard by successfully engaging 9 of 14 targets with the 9mm tracer trainer (table II and IV of Appendix E, FM 3-23.25) every 12 months.

(c) NATIONAL GUARD Standard (ODA and ODB). Each Soldier per ODA/ODB will meet the individual requirements to standard by successfully engaging 9 of 14 targets with the 9mm tracer trainer (tables II and IV of Appendix E, FM 3-23.25) every 36 months.

(d) NATIONAL GUARD Standard (HHC/GSB). 12 assigned Soldiers from each support company will meet the individual requirements by successfully engaging six of eight targets with the 9mm tracer trainer (table II and IV of Appendix E, FM 3-23.25) every 36 months.

**Table 12-11**  
**AT-4 Qualification**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODAODB	HHCGB	ODAODB	HHCGB
table I Instructional Day	TP-T	A358	12	1	1	1	1
table II Instructional Night	TP-T	A358	12	1	1	1	1
table III Day Qualification <sup>1</sup>	TP-T	A358	8	1	1	1	1
table IV Night Qualification <sup>1</sup>	TP-T	A358	8	1	0	1	0

**Table 12–11**  
**AT–4 Qualification—Continued**

table V Advanced Fire	TP–T	A358	6	1	0	1	0
LFX (Live Missile) per Bn	HEAT	C995	6	1	0	.33	0
<b>Total Rounds</b>							
Qualification/Instructional Fire		A358		46	32	46	32
Live Missiles Per Bn		C995		6	0	2	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 12 Individual on ODA and 10 on ODB will conduct training with M287 Sub-Caliber device.

<sup>3</sup> Only 12 assigned Soldiers from each Support Company will conduct training with M287 Sub-Caliber device.

(12) Hand Grenade. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–12.

(a) ACTIVE ARMY (ODA/ODB) Standard. All Soldiers assigned to ODA/ODB will successfully negotiate the Hand Grenade Qualification Course (FM 3–23.30) every 12 months, and throw a live Hand Grenade every 12 months to include conducting a LFX once every 4 months.

(b) ACTIVE ARMY (HHC/GSB) Standard. All Soldiers assigned to a company will successfully negotiate the Hand Grenade Qualification Course (FM 3–23.30) and throw a live Hand Grenade once every 24 months.

(c) NATIONAL GUARD (ODA/ODB) Standard. All Soldiers assigned to ODA/ODB will successfully negotiate the Hand Grenade Qualification Course (FM 3–23.30), throw a live Hand Grenade, and conduct an LFX every 12 months.

(d) NATIONAL GUARD (HHC/GSB) Standard. All Soldiers assigned to a company will successfully negotiate the Hand Grenade Qualification Course (FM 3–23.30) every 12 months. All Soldiers will throw a live hand Grenade once every 36 months.

**Table 12–12**  
**Hand Grenade Ammunition/Training Strategy (FM 3–23.30)<sup>1,2,3</sup>**

Event	Type	DODIC	Rounds	Freq			
				AC		NG	
				ODA ODB	HHC GSB	ODA ADB	HHC GSB
Mock Bay	Pract FZ	G878	2	1	0.5	0.5	0.5
Qualification	Pract FZ	G878	6	1	1	1	1
Live Grenade Throw	FRAG HE	G881	1	1	0.5	1	0.5
<b>Collective Training</b>							
ODA LFX	FRAG HE	G881	2	1	0	1	0
<b>Total Per Soldier:</b>							
	Pract FZ	G878		8	7	7	7
	FRAG HE	G881		3	1 <sup>4</sup>	3	1 <sup>4</sup>

Notes:

<sup>1</sup> The G878 Practice Fuze requires the G811 (body practice hand grenade) to conduct training.

<sup>2</sup> There are 12 assigned to an ODA and 10 assigned to an ODB.

<sup>3</sup> Once every 24 months.

(13) M18A1/A2 Claymore Mine. Training standards by component are given below. Recommended training strategies and ammunition resources are given in table 12–13. ACTIVE ARMY (ODA/ODB) Standard. All assigned Soldiers will emplace, arm and disarm an inert Claymore mine. Also, all assigned Soldiers will emplace, arm and disarm a Live Claymore mine to standard every 12 months during the day and night to standard (ARTEP 31–807–30 MTP).

(a) ACTIVE ARMY (HHC/GSB) Standard. All assigned Soldiers will emplace, arm and disarm an inert Claymore mine to standard every 12 months to standard (ARTEP 31–807–30 MTP).

(b) NATIONAL GUARD (ODA/ODB) Standard. All assigned Soldiers will emplace, arm and disarm an inert

Claymore mine. Also, all assigned Soldiers will emplace, arm and disarm a Live Claymore mine during the day and night to standard (ARTEP 31–807–30 MTP) every 36 months.

(c) NATIONAL GUARD (HHC/GSB) Standard. All assigned Soldiers will emplace, arm and disarm an inert Claymore mine to standard within the past 36 months to standard (ARTEP 31–807–30 MTP).

**Table 12–13**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq			
				AC		NG	
				ODAODB	HHCGB	ODAODB	HHCGB
Employment Instruction/Qualification <sup>(1)</sup>	Inert	K139	N/A	4	1	1	.33
ODA/ODB LFX	Live	K143	2	1	0	.33	0
<b>Total Per Soldier</b>							
M18A1/A2 Claymore Mines	Live	K143		2	0	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> K143 is the primary DODIC for the live Claymore mine. If K145 is substituted for K143, units must order the accessories: M67 Firing Device, M40 test set, M4 electric blasting cap, and the M7 bandoleer.

e. CS Chamber Strategy (See table 12–14)

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 12–14**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> 2. The CS Chamber must be primed with 5 capsules to begin training.

f. Pyrotechnics. This paragraph provides the annual pyrotechnic training requirements. Units are resourced as shown in the following tables to support field exercises. Commanders may desire to use more or less pyrotechnics than what is indicated for a particular level of exercise. Pyrotechnic requirements are listed in table 12–15.

**Table 12–15**  
**Pyrotechnic<sup>1</sup>**

Type	DODIC	Total Rounds Per Battalion
HG Smoke Green	G940	212
HG Smoke Yellow	G945	254
HG Smoke Red	G950	106
HG Smoke Violet	G955	72
HG Smoke CS	G963	60
HG Smoke HC	G982	248

**Table 12-15**  
**Pyrotechnic<sup>1</sup>—Continued**

Riot Control Agent CS -1 per 10 Soldiers	K765	70
Sig Illum Green Star Parachute	L305	10
Sig Illum Red Star Parachute	L306	80
Sig Illum Red Star Cluster	L311	30
Sig Illum WH Star Parachute	L312	110
Sig Illum Green Star Cluster	L314	118
Flare Surface Trip	L495	94
Fuze Warning RR Red	L508	180
Marker, Location Marine	L283	40
Marker, Location Marine	L554	40
Sim Proj Ground Burst	L594	800
Sim Proj Air Burst	L595	12
Sim Booby trap Flash	L598	108
Sim Booby trap Illumination	L599	52
Sim Booby trap Whistle	L600	158
Sim Hand Grenade	L601	664

Notes:

<sup>1</sup> OPFOR Requirements are included in the above table.

#### 12-4. Special Forces Proponent Strategies

a. Mortars (60mm and 81mm). Training standards by component are given below. Recommended training strategies and ammunition resources are given in: table 12-15 60mm; table 12-16, 81 mm.

(1) ACTIVE ARMY Standard (ODA and ODB). All gunners and assistant gunners (18B MOS, 2 per ODA /ODB) will have passed the mortar gunner's exam with a minimum score of 70 percent in each event (FM 3-22.90) and conduct a LFX every 12 months.

(2) NATIONAL GUARD Standard (ODA and ODB). All gunners and assistant gunners (18B MOS 2 per ODA/ ODB) will have passed the mortar gunner's exam with a minimum score of 70 percent in each event (FM 3-22.90) and conduct a LFX every 36 months.

**Table 12-16**  
**60mm Mortar Annual Ammunition / Training Strategy (ODA / ODB)<sup>1,3</sup>**

Event	Type	DODIC	Rounds <sup>2</sup>	Freq	
				AC ODA ODB	NG ODA ODB
Gunner's Exam & FDC Exam Crew Drill & FDC Tng Live Fire.	HEPD	BA17	24	1	0.33
	WP	BA14	4	1	0.33
	Illum	B647	4	1	0.33
	Illum IR	BA04	6	1	0.33
	FRTR	BA15	12	1	0.33
<b>Total Rounds</b>					
HEPD				48	16
WP				8	3
Illum				8	3
Illum IR				12	4

**Table 12–16**  
**60mm Mortar Annual Ammunition / Training Strategy (ODA / ODB)<sup>1,3</sup>—Continued**

FRTR	24	8
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Notes:

<sup>1</sup> Total Rounds per ODA/ODB for NG represent one year requirement.

<sup>2</sup> Numbers of rounds are multiplied by 2 individuals to conduct training (Normally 2 x 18Bs per ODA/ODB).

<sup>3</sup> Amounts are below the Infantry Center standard because the 18Bs do not need to be at the same skill level as an assigned gunner in a mortar section.

**Table 12–17**  
**81mm Mortar Annual Ammunition / Training Strategy (ODA / ODB)<sup>1,3</sup>**

Event	Type	DODIC	Rounds <sup>2</sup>	Freq	
				AC ODA ODB	NG ODA ODB
Gunner's Exam &	HW	C869	18	1	0.33
FDC Exam Crew Drill &	WP	C870	4	1	0.33
FDC Tng Live Fire.	Illum	C871	4	1	0.33
	FRTR	C875	2		
<b>Total Rounds</b>					
HE w/MOF				36	12
WP				8	3
Illum				8	3
FRTR				24	8

Notes:

<sup>1</sup> Total Rounds per ODA/ODB for NG represent one year requirement.

<sup>2</sup> Numbers of rounds are multiplied by 2 individuals to conduct training (Normally 2 x 18Bs per ODA/ODB).

<sup>3</sup> Amounts are below the Infantry Center standard because the 18Bs do not need to be at the same skill level as an assigned gunner in a mortar section.

b. Ground Mobility Vehicle (GMV). Training standards by component are given below (3rd and 5th SFG (A) s only) and NATIONAL GUARD (2/19TH SFC (A) only). Recommended training strategies and ammunition resources are given in table 12–18 for Active Army and table 12–19 for the National Guard.

(1) Active Army (ODA Only). All GMV crews must participate in preliminary marksmanship training and instructional fire for each weapons system (M240B, M2HB, and MK–19) every 12 months prior to LFXs. One individual designated as the primary gunner for that specific weapons system will conduct firing tables and qualify in accordance with the respective Field Manual (FM 3–22.27 and FM 3–22.67) every six months. All ODAs alone or as part of a larger unit will have successfully participated in a day and night LFX to standard (ARTEP 31–807–30 MTP, FM 31–23 Special Forces Mounted Operations) once every three months or a total of 4 LFXs every 12 months.

(2) National Guard Standard (ODA only). All GMV crews must participate in preliminary marksmanship training and instructional fire for each weapons system (M240B, M2HB, and MK–19) every 24 months prior to LFXs. One individual designated as the primary gunner for that specific weapons system will conduct firing tables and qualify in accordance with the respective Field Manual (FM 3–22.27 and FM 3–22.67) every 12 months. All ODAs alone or as part of a larger unit will have successfully participated in a day and night LFX to standard (ARTEP 31–807–30 MTP, FM 31–23 Special Forces Mounted Operations) every 12 months.



**Table 12–18.**  
**Annual Ammunition Requirements and Strategy for the Ground Mobility Vehicle (GMV) (AC, NG)<sup>6,8</sup>**

table	Ind/	Freq		DODIC					
	ODA <sup>3,4</sup>	AC	NG	A557	A598	A143	A131	A111	B584 G978 <sup>9</sup>
M240B PMT <sup>1</sup>	8	1	0.5				100		
Iron Sight (IV)	4	2	1			288			
Iron Sight(V)	4	2	1				336		
MG Optic (IV–V)	4	2	1				336		
Night (TWS)	4	2	1				498		
LFX (Day-Night) <sup>5</sup>	4	4	1				800	400	8
M2 .50 Cal PMT	10	1	0.5	100					
Day Qual (I–II)	2	2	1	280					
Night (TWS) (III–IV)	2	2	1	288					
LFX (Day-Night) (VI)	2	4	1	406	200				
MK–19 PMT <sup>2</sup>	10	1	0.5						26
Day MTD (III)	2	2	1						26
Day Qual MTD (VI)	2	2	1						26
Night (TWS) (IV–VII)	2	2	1						88
LFX Linear (VIII) <sup>7,9</sup>	2	4	1						160
LFX Linear (IX) <sup>7,9</sup>	2	4	1						80
LFX Area (X) <sup>7,9</sup>	2	4	1						200

Notes:

<sup>1</sup> PMT=Preliminary Marksmanship Training/Instructional Fire for M240B and M2 will be completed by Non-gunners.

<sup>2</sup> PMT=Preliminary Marksmanship Training/Instructional Fire for MK–19 will be completed by all gunners and Non-gunners as per FM 3–22.27.

<sup>3</sup> ODA Breakdown: 0 ODA=4 GMVs (4x240B, 2xM2HB, and 2xMK–19) 18=ODAs=BN.

<sup>4</sup> Ind/ODA=There are 12 Individuals per ODA this column is broken down by individual required to complete training.

<sup>5</sup> LFX is collective task for the ODA to conduct alone or as part of a larger force (Day and Night conducted).

<sup>6</sup> Referenced Weapon Field Manuals and Infantry Training Center for Qualification tables.

<sup>7</sup> LFX tables in FM 3–22.27 VIII–IX–X are for multiply guns, Calculation is for one (1) gun and a day and night iteration.

<sup>8</sup> Optics available is the M145 for the M240B and AN/PAS–13 TWS for all weapons systems on GMV.

<sup>9</sup> 8 Smokes (G978) are used in each LFX by each GMV. There are 4 LFXs and 4 GMVs per ODA.

### c. Engineer Weapon Systems.

(1) Engineer weapons systems training standards by component are given below.

(2) Recommended training strategies and ammunition resources are given in table 12–19.

(a) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform each task listed in table 12–19 and prime live demolitions for live fire to FM 5–250 standards and within STP 31–18–SM–TG and STP 31–18C3/4–SM–TG standards every 12 months.

(b) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform each task listed below and prime live demolitions for live fire to FM 5–250 standards and within STP 31–18–SM–TG and STP 31–18C3/4–SM–TG standards every 36 months.

(c) Individual Task List:

(d) 051–193–1002 Construct a Non-electric Demolition Firing system.

(e) 051–193–1004 Construct an Electric Demolition firing system.

(f) 051–193–1009 Construct a Detonating Cord Firing System.

(g) 051–193–1011 Install a Dual Firing System.

(h) 051–193–3038 Install Booby Traps.

(i) 051–193–3050 Calculate and Designate Placement of Timber cutting charges.

(j) 051–193–3051 Calculate and Designate Placement of Steel cutting charges.

(k) 331–922–0502 Employ the M2A1 8 second Delay Percussion Detonator.

(l) 331–922–0503 Employ the M2A1 15 second Delay Percussion Detonator.

(m) . 331–922–0504 Employ the M1 Delay Firing Device (Time Pencil).

- (n) 331-922-0505 Employ Civilian Explosives.
- (o) 051-193-2028 Neutralize Obstacles.
- (p) 051-193-3052 Calculate and Designate Placement of breaching charges.
- (q) 051-193-3053 Calculate Explosives and Designate placement of Cratering charges.
- (r) 331-922-0009 Prepare and Employ a Demolition ambush.
- (s) 331-922-0010 Prepare and Employ Expedient munitions.
- (t) 331-922-0500 Employ M10 Universal Explosive Destructor.
- (u) 331-922-0501 Employ M19 Explosive Destructor.
- (v) . 331-922-0506 Construct and Employ Expedient charges (shape, dust initiator, platter, ammonium nitrate satchel, cratering and grapeshot).
- (w) 051-192-1002 Install/Remove the M16A1 Bounding Fragmentation Mine. (Korea only)
- (x) 051-192-1026 Install/Remove the M2 series (M2A4) Bounding AP Mine.
- (y) 051-192-1004 Install/Remove the M25 Blast AP Mine.
- (z) 331-922-0507 Install/Remove the M3 Blast AP Mine.
- (aa) 051-192-1006 Install/Remove the M15 AT Mine.
- (ab) 051-192-1007 Install/Remove the M19 AT Mine.
- (ac) 051-192-1008 Install/Remove the M21 AT Mine.
- (ad) 051-192-1028 Install/Disarm and package the M24 AT Mine.
- (ae) 051-192-2009 Install/Remove the M1 1-Gallon Chemical Mine with an Electric Detonating Assembly.
- (af) 051-192-2010 Install/Remove the M23 AP Chemical Mine.
- (ag) 051-192-1014 Install/Remove US Anti handling Devices on AT Mines.
- (ah) 051-192-3030 Direct a Minefield Laying Party.
- (ai) 051-192-3032 Direct Installation /Removal of a Hasty Protective Minefield.

**Table 12-19.**  
**Engineer Weapons Systems (ODA Only)**

TYPE	DODIC	Rounds	AC ODA	NG ODA
7.62 mm Ball	A130	12	12	4
60mm HE	BA17	12	12	4
81mm HE	C256	12	12	4
Grenade, HE	G881	12	12	4
Grenade, Incendiary	G900	12	12	4
Rocket 66mm HE	H557	4	4	2
Activator, AT Mine Practice	K002	12	12	4
Prime-igniter AP Mine	K030	12	12	4
Charge Spotting AP Mine M8	K040	12	12	4
Mine AT M15	K180	1	1	1
Mine AT M21	K181	1	1	1
Compound Thickening M4	K917	4	4	1
Charge Demolition C4	M023	180	180	60
Charge Demolition M118	M024	120	120	40
Demo Kit Bangalore Torpedo 2.5'	MP03	1	1	1
Charge Demo ¼ lb TNT	M030	50	50	16
Charge Demo 1 lb TNT	M032	150	150	50
Charge Demo 40lb Cratering	M039	6	6	2
Cap Blasting Electric	M130	80	80	27
Cap Blasting Non-electric	M131	240	240	80
Destructor Universal M10	M241	2	2	1
Charge Demo Shape 15lbs	M420	6	6	2

**Table 12–19.**  
**Engineer Weapons Systems (ODA Only)—Continued**

Charge Demo Shaped 40lbs	M421	4	4	2
Cord Detonating Reinforced	M456	12000	12000	4000
Dynamite Mil M1	M591	150	150	50
Firing Device Pressure M5	M627	2	2	1
Fuze Time Blasting M700	M670	2000 ft	2000 ft	700
Charge Assembly Demo M183	M757	12	12	4
Igniter Time Fuse	MN08	80	80	40
Squib, Electric M1	M842	10	10	3
Firing Device M142	ML03	12	12	4
Detonator 15 sec Delay M1A2	M450	24	24	8
Firing Device Delay M1 (Time Pencil)	M619	12	12	4
Firing Device Delay M1	M626	2	2	1
Firing Device M1A1	M629	2	2	1
Firing Device M3	M630	2	2	1
Firing Device Time Delay (TD–SYDET)	MN91	8	8	3
Selectable Light Weight Attack Munitions	MM15	4	4	2
Cap Blasting Non-elect 30ft Shock Tube	ML47	24	24	8
Cap Blasting Non-elect 500ft Shock Tube	MN88	24	24	8
Cap Blast Non-Elect 1000ft Shock Tube	MN90	24	24	8
Cap Blasting Non-Elect delay M14	MN06	24	24	8
Cap Blasting Non-Elect delay M15	MN07	12	12	4

## 12–5. Non-Standard Weapons and Events.

Training standards by component are given below. Recommended training strategy is not included because preliminary marksmanship training and instructional fire will be conducted by ODAs only.

a. Pistols and Revolvers. Recommended training strategies and ammunition resources are given in table 12–20. Foreign weapons identified as critical to units training requirements and are in accordance with STP 31–18–SM–TG.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 12 months.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 36 months.

**Table 12–20.**  
**Pistols and Revolvers<sup>1,2</sup>**

				Freq	
Event	Type	DODIC	Rounds	AC ODA	NG ODA
Instructional Fire for:					
Pistol Browning HP	9x19	AA49	10	1	0.33
Pistol Glock 17	9x19	AA49	10	1	0.33
Pistol HK P7	9x19	AA49	10	1	0.33
Pistol HK USP	9x19	AA49	10	1	0.33
Makorov Type 59 <sup>1</sup>	9x18	Z208	30	1	0.33
Pistol M1911A1	0.45	A475	10	1	0.33
Pistol Manuhrin MR73	0.38	A400	10	1	0.33
Total Rounds					

**Table 12–20.**  
**Pistols and Revolvers<sup>1,2</sup>—Continued**

9x19	AA49	40	13
9x18	Z208	30	10
.38	A400	10	3
.45	A475	10	3

Notes:

<sup>1</sup> Zulu Items are a U.S. Army Special Operations Command (USASOC) procurement item.

<sup>2</sup> Each individual on an ODA (12) will conduct instructional fire.

b. Rifles. Recommended training strategies and ammunition resources are given in table 12–21. Foreign weapons identified as critical to units training requirements and are in accordance with STP 31–18–SM–TG.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 12 months.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 36 months.

**Table 12–21.**  
**Rifles<sup>1, 2</sup>**

Event	Type	DODIC	Rounds	Freq	
				AC ODA	NG ODA
Instructional Fire for:					
Rifle, Assault AK47 <sup>1</sup>	7.62x39	Z203	30	1	0.33
Rifle FN/FAL	7.62x51	A130	30	1	0.33
Rifle Assault AK74S <sup>1</sup>	5.45x39	Z200	30	1	0.33
Carbine SIMON SKS–43	7.62x51	A130	30	1	0.33
Rifle FAMAS	5.56x45	AA33	30	1	0.33
Rifle G3A4	7.62x51	A130	30	1	0.33
Rifle M14	7.62x51	A130	30	1	0.33
Rifle Styre	5.56x45	AA33	30	1	0.33
M79 GL	40mm	B546	4	1	0.33
M1200	12 GA #9	A017	8	1	0.33
Total Rounds					
	5.56x45	AA33		720	238
	5.45x39	Z200		360	119
	7.62x39	Z203		360	119
	40mm	B546		48	16
	7.62x51	A130		1440	475
	7.62x39	Z204 <sup>1,3</sup>		720	238
	12 GA #9	A017		96	32

Notes:

<sup>1</sup> Items are a USASOC procurement item.

<sup>2</sup> Each individual on an ODA (12) will conduct instructional fire.

<sup>3</sup> Z204 Blank 7.62 x 39 used as OPFOR Ammunition during training.

c. Submachine Guns. Recommended training strategies and ammunition resources are given in table 12–22. Foreign weapons identified as critical to units training requirements and are in accordance with STP 31–18–SM–TG.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 12 months.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 36 months.

**Table 12–22.**  
**Submachine Guns<sup>1</sup>**

				Freq	
Event	Type	DODIC	Rounds	AC ODA	NG ODA
Instructional Fire for:					
SMG UZI	9x19	AA49	30	1	0.33
SMG Carl Gustaf	9x19	A475	30	1	0.33
SMG HK MP5A3	9x19	AA49	30	1	0.33
SMG M12 M12S Berretta	9x19	AA49	30	1	0.33
SMG L2A3	9x19	AA49	30	1	0.33
SMG M50 Madsen	0.45	AA49	30	1	0.33
SMG M61 Scorpion	9x19	AA49	30	1	0.33
Total Rounds					
	9x19	AA49		180	60
	.45	A475		30	10

Notes:

<sup>1</sup> All individuals on an ODA (12) will fire instructional fire.

d. Machine Guns. Recommended training strategies and ammunition resources are given in table 12–23. Foreign weapons identified as critical to units training requirements and are in accordance with STP 31–18–SM–TG.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 12 months.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 36 months.

**Table 12–23.**  
**Machine Guns<sup>1,2</sup>**

			Freq		
Event	Type	DODIC	Rounds	AC ODA	NG ODA
Instructional Fire for:					
MG DSHK 38/46	7.62x12.7x108	Z210	100	1	0.33
MG M60	7.62x51	A130	100	1	0.33
MG RPD/RPK	7.62x39	Z205	100	1	0.33
MG MAG–58	7.62x51	A130	100	1	0.33
Machinegun MG3	7.62x51	A130	100	1	0.33
MG PK/PKM Series	7.62x54R	Z203	100	1	0.33
Total Rounds					
			A130	300	99
			Z210	100	33
			Z205	100	33

**Table 12–23.**  
**Machine Guns<sup>1,2</sup>—Continued**

	Z203	100	33
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Notes:

<sup>1</sup> Zulu items are a USASOC procurement item.

<sup>2</sup> All individuals of an ODA (12) will conduct.

*e.* Rocket Propelled Grenades (RPGs). Recommended training strategies and ammunition resources are given in table 12–24. Foreign weapons identified as critical to units training requirements and are in accordance with STP 31–18–SM–TG.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 12 months.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers will perform basic tasks of load, fire, and reduce a stoppage and maintenance training for each weapon as per STP 31–18–SM–TG standards every 36 months.

**Table 12–24.**  
**Rocket Propelled Grenades RPGs<sup>1, 2</sup>**

					Freq
Event	Type	DODIC	Rounds	AC ODA	NG ODA
Instructional Fire for:					
Rocket Propelled Grenade <sup>(1)</sup>	RPG–7	Z219	1	0.5	0.33
Rocket Propelled Grenade <sup>(1)</sup>	RPG–18	Z221	1	0.5	0.33
Total Rounds					
	RPG–7	Z219		6	4
	RPG–18	Z221		6	4

Notes:

<sup>1</sup> Zulu items are a USASOC procurement item.

<sup>2</sup> All individuals of an ODA (12) will conduct instructional fire.

*f.* Close Quarter Combat. Recommended training strategies and ammunition resources are given in table 12–25. This strategy and ammunition resources are required by a SF Company (One Company per SF Group) specifically designated with a theater directed Close Quarter Combat mission.

(1) ACTIVE ARMY Standard. All assigned Soldiers will perform sustainment tasks as outlined in FM 31–28 and the training strategy. Soldiers will progress from conducting advanced marksmanship skills to conducting drills that allow Soldiers sustain a high degree of skill in Close Quarter Combat as outlined in FM 31–28 and the program of instruction produced by USASOC.

(2) NATIONAL GUARD Standard. No training Requirement.

**Table 12–25.**  
**Close Quarter Combat<sup>1,2</sup>**

Event	Type	DODIC	Rounds	ODA Co Freq
Advanced Rifle Sustainment	Ball	AA33	240	4
Advanced Pistol Sustainment	Ball	AA49	360	4
Slow Aim Fire I	Ball	AA49	215	4
Slow Aim Fire II	Ball	AA33	120	4
Slow Aim Fire II	Ball	AA49	85	4
Target Acquisition	Ball	AA33	80	4
Target Acquisition	Ball	AA49	320	4
Controlled Pairs	Ball	AA33	90	4

**Table 12–25.**  
**Close Quarter Combat <sup>1,2</sup>—Continued**

Controlled Pairs	Ball	AA49	260	4
Target Engagement I <sup>3</sup>	Ball	AA33	60	4
Target Engagement I <sup>3</sup>	Ball	AA49	130	4
Target Engagement I <sup>3</sup>	Plastic	AA68	180	4
Target Engagement II <sup>3</sup>	Ball	AA33	60	4
Target Engagement II <sup>3</sup>	Ball	AA49	540	4
Target Engagement II <sup>3</sup>	Plastic	AA68	90	4
Shoot while moving Target Acquisition <sup>3</sup>	Ball	AA33	60	4
Shoot while moving Target Acquisition <sup>3</sup>	Ball	AA49	180	4
Shoot while moving Target Acquisition <sup>3</sup>	Plastic	AA68	200	4
Shoot while Moving <sup>3</sup>	Ball	AA33	12	4
Shoot while Moving <sup>3</sup>	Ball	AA49	16	4
Shoot while Moving <sup>3</sup>	Plastic	AA68	36	4
Shoot behind Cover <sup>3</sup>	Ball	AA33	23	4
Shoot behind Cover <sup>3</sup>	Ball	AA49	86	4
Shoot behind Cover <sup>3</sup>	Plastic	AA68	69	4
Shoot Behind Cover (Night) <sup>3</sup>	Ball	AA33	17	4
Shoot Behind Cover (Night) <sup>3</sup>	Ball	AA49	34	4
Shoot Behind Cover (Night) <sup>3</sup>	Plastic	AA68	17	4
Company LFX	12 GA. #9	A017	5	4
Company LFX	Ball	AA33	120	4
Company LFX	Ball	AA49	60	4
Company LFX	Fuse IGNT	MN08	8	4
<b>Total rounds per individual</b>				
	12 GA. #9	A017	20	
	Ball	AA33	3528	
	Ball	AA49	9144	
	Plastic	AA68	2368	
	Fuse IGNT	MN08	32	

Notes:

<sup>1</sup> There are 12 Individuals per Team.

<sup>2</sup> There are a total of 6 CQB Teams.

<sup>3</sup> AA68 may be substituted with A059 as necessary based on shoot house capabilities.

g. Special Forces Advanced Urban Combat. Recommended training strategies and ammunition resources are given in table 12–26. This strategy outlines a training program that was developed to train and sustain an SF ODA, at a two-year interval, combat skills needed for operating in an urban environment, included are tasks that also enhance force protection skills. Tasks are in accordance with the basic field manuals for the weapons systems that are employed, program of instruction developed by USAJFKSWCS, and FM 31–28. This training program is not designated for the Close Quarter Combat Company.

(1) ACTIVE ARMY (ODA Only) Standard. All assigned Soldiers at a minimum will perform tasks as outlined in the training strategy every 24 months. Soldiers will progress from conducting marksmanship training to conducting drills that allow Soldiers to sustain a solid level of knowledge and skill in urban combat as outlined in FM 31–28 and the program of instruction produced by USASOC.

(2) NATIONAL GUARD (ODA Only) Standard. All assigned Soldiers at a minimum will perform tasks as outlined in the training strategy every 36 months. Soldiers will progress from conducting marksmanship skills to conducting drills that allow Soldiers to sustain a solid knowledge and skill level in urban combat as outlined in FM 31–28 and the program of instruction produced by USASOC.

**Table 12–26**  
**Special Forces Advanced Urban Combat (SFAUC)<sup>1,2</sup>**

Event	Type	DODIC	Rounds	Freq	
				AC ODA	NG ODA
Rifle Marksmanship	5.56 Ball	A059	1516	0.5	0.33
Pistol Marksmanship	9mm Ball	A363	2061	0.5	0.33
<b>Urban Movement</b>					
	UTM Marker	AB09	300	0.5	0.33
	UTM Marker	AB10	300	0.5	0.33
	HG Smoke	G982	4	0.5	0.33
	40mm TP	B584	5	0.5	0.33
	SIM HD Grenade	L601	12	0.5	0.33
<b>Advanced Urban Combat</b>					
	9mm Ball	A363	200	0.5	0.33
	Plastic	AA68	500	0.5	0.33
<b>Explosive Entry</b>					
	Shock Tube	ML47	4	0.5	0.33
	12 Ga #9	A011	25	0.5	0.33
	12 Ga 00	A017	10	0.5	0.33
	Igniter	MN08	4	0.5	0.33
	CORD, DET	M456	53ft	0.5	0.33
<b>Combat Shotgun</b>					
	12 Ga #9	A011	45	0.5	0.33
<b>Vehicle Operations</b>					
	5.56 Ball	A059	50	0.5	0.33
	9mm Ball	A363	50	0.5	0.33
<b>Company LFX</b>					
	5.56 Ball	A059	140	0.5	0.33
	9mm Ball	A363	60	0.5	0.33
	5.56 Blank	A080	100	0.5	0.33
	HG Smoke	G982	2	0.5	0.33
	40mm TP	B584	4	0.5	0.33
	SIM HD Grenade	L601	2	0.5	0.33
<b>Instructor Demonstration <sup>2</sup></b>					
UTM Marking	UTM Marker	AB16	2500		
	UTM Marker	AB 17	2500		
	Shock Tube	ML47	52		
	12 Ga #9	A011	5		
	12 Ga 00	A017	5		
	Igniter	MN08	52		
	HG Smoke	G982	2		
	CORD, DET	M456	1400ft		
	Cap Blasting SP	M130	60		

Notes:

<sup>1</sup> Ammunition used by instructors as demonstration purposes and OPFOR.

<sup>2</sup> These are totals for one (1) Course.



**Table 12–27**  
**Special Forces Advanced Urban Combat (SFAUC) Break Down Roll-Up**

<b>DODIC</b>	<b>AC</b>	<b>NG</b>
	<b>Total Rounds per Individual</b>	
A059	1706	1706
A080	100	100
A363	2371	2371
AA68	500	500
A011	10	10
A017	70	70
B584	9	9
G982	6	6
L601	14	14
ML47	4	4
MN08	4	4
M456	53FT	53FT
M130	0	0
AB09	300	300
AB10	300	300
	<b>Total Rounds per Training Program(48)<sup>1</sup></b>	
A059	81888	81888
A080	4800	4800
A363	113808	113808
AA68	24000	24000
A011	960	960
A017	3360	3360
B584	432	432
G982	288	288
L601	672	672
ML47	192	192
MN08	192	192
M456	2544	3944
M130	0	0
AB09	16900	16900
AB10	16900	16900
	<b>Total USASFC(A) Annual Requirement<sup>2</sup></b>	
A059	2456640	655104
A080	144000	38400
A363	3414240	910464
AA68	720000	192000
A011	28950	7680
A017	100950	26880
B584	12960	3456
G982	8700	2320
L601	20160	5376
ML47	7560	2016

**Table 12–27**  
**Special Forces Advanced Urban Combat (SFAUC) Break Down Roll-Up—Continued**

MN08	7680	2048
M456	118320	42752
M130	1800	480
AB09	354900	101400
AB10	354900	101400

Notes:

<sup>1</sup> Includes items for Instructor demonstration and 48 students.

<sup>2</sup> Annual Requirement calculated by SF group which total 30 courses to be conducted on a biennially basis = 15 courses per year. There are only 2 NG SF Groups = 8 courses every 36 months or 4 annually.

## Chapter 13

### 160th Special Operations Aviation Regiment (Airborne)

#### 13–1. Description

*a.* This chapter provides weapons standards, training strategies and training ammunition resource requirements for the 160th Special Operations Aviation Regiment (Airborne). The training programs are specifically designed for each weapon system within the regiment and the battalions. Each training event contains the standards and strategies, the ammunition requirement and the required frequency of fire.

*b.* The objective is to ensure training ammunition is available to maintain weapons proficiency.

*c.* Training programs are developed for each weapon system. The training programs provide a method for attaining and sustaining weapons proficiency throughout the training year. Standards are stated at the beginning of each program. These standards are based on training readiness requirements, unique training needs and objectives as specified by mission. Dry-fire exercises, sub-caliber exercises, device usage and full caliber live-fire exercises are used to develop and maintain weapons proficiency. Ammunition resources are based on the number of personnel required to become proficient and/or the number of weapon systems authorized. All organic weapons systems are discussed in this chapter.

*d.* The training strategies in this chapter are based on exercises in current FM's, Mission Essential Task Lists (METLs), and historical training data. The specifics of each exercise are not presented here.

#### 13–2. Individual Weapons Training, Requirements and Qualification. (Standards and Strategies for Training)

##### *a. Selection and Training Company*

(1) Standards. All personnel arriving to the Regiment must qualify with the M16A2, 9mm pistol prior to assignment to one of the operational battalions.

(2) Training Strategy. All personnel will undergo initial training established in the Selection and Training program. Requirements are based on 8 enlisted and 8 officer classes per fiscal year with an average of 560 students annually. While in this program, personnel will qualify and train in the different M16A2/M4 and 9mm pistol firing techniques as indicated in table 13–1 and 13–2. This strategy ensures all personnel are fully mission qualified prior to operational unit assignment and emphasizes weapon sustainment.

**Table 13–1**  
**Annual Ammunition Requirements and Strategy for the Training Company**

Event	Type	DODIC	Rounds
Trauma Lanes	5.56mm Ball	AA33	660 per student
Trauma Lanes	9mm Ball	AA49	780 per student
Trauma Lanes	Blank	A111	400 per class
Trauma Lanes	SIM PROJ GRND BRST	L594	10 per class
Trauma Lanes	SIM HND GREN	L601	10 per class

**Table 13–2**  
**Annual Pyrotechnics Requirements for Land Navigation**

Event	Type	DODIC	Rounds
Land Navigation	HG SMK Green	G940	6 per class
Land Navigation	HG SMK Yellow	G945	6 per class
Land Navigation	HG SMK Red	G950	6 per class
Land Navigation	HG SMK Violet	G955	6 per class
Land Navigation	HG SMK PRACT	G982	6 per class
Land Navigation	Red STR CLSTR	L306	5 per class
Land Navigation	White STR CLSTR	L307	5 per class
Land Navigation	Red STR Para	L311	5 per class
Land Navigation	White STR Para	L312	5 per class
Land Navigation	Green STR CLSTR	L314	5 per class

*b. M16A2/M4 Rifle.*(See table 13–3 and 13–4)

(1) Standards. All personnel assigned a M16A2/M4 rifle will remain fully mission qualified with that weapon system once they have been assigned to a unit. Qualification consists of firing the record fire course (FM 3–22.9), firing in MOPP 4 protective clothing and firing at night for record every six months.

(2) Day Requirements: Iron Sight: All Soldiers will qualify on the day and NBC record course. When available, Soldiers will conduct the NBC record course on the EST 2000. Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(3) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day course with one modification; the timed target exposures are increased by two seconds for each target presented.

**Table 13–3**  
**M16/M4 Qualification (FM 3–22.9)**

		DODIC <sup>3</sup>		
Event	Type	AA33	A063	Freq
Iron Sight (Primary Sight)				
Preliminary Marksmanship Training	EST/LMTS			4
Iron Sight Zero <sup>1</sup>	Ball	18		2
Iron Sight Practice Record	Ball	40		2
Iron Sight Record <sup>1</sup>	Ball	40		2
Subtotal		196		
Close Combat Optic (Primary Sight) <sup>2</sup>				
Preliminary Marksmanship Training	EST/LMTS			4
Zero (CCO) <sup>1</sup>	Ball	18		2
Practice (CCO)	Ball	40		2
Record (CCO) <sup>1</sup>	Ball	40		2
Back-Up Iron Sight Zero	Ball	18		1
Back-Up Iron Sight Practice Record	Ball	40		1
Back-Up Iron Sight Record	Ball	40		1
Subtotal		294		
All Primary Sights				
NBC Practice	Ball or EST	20		2
NBC Record <sup>1</sup>	Ball or EST	20		2

**Table 13–3**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

Unassisted Night Practice	Ball/Tracer or EST	20	10	2
Unassisted Night Record <sup>1</sup>	Ball/Tracer or EST	20	10	2
<b>Subtotal (AA33/A063)</b>				
<b>Units not equipped with EST</b>		160	40	
<b>Units equipped with EST</b>				0/0
<b>Thermal Weapon Sight<sup>2</sup></b>				
Zero (WFOV & NFOV) <sup>1</sup>	Ball	36		2
Night Field Fire I	Ball	36		2
Practice Record	Ball	40		2
Record <sup>1</sup>	Ball	40		2
<b>Subtotal</b>		304		
<b>Infrared<sup>2</sup></b>				
IR Zero <sup>1</sup>	Ball	18		2
IR Night Field Fire I	Ball	36		2
IR Practice Record	Ball	40		2
IR Record <sup>1</sup>	Ball	40		2
<b>Subtotal</b>		268		
<b>Total Rounds</b>		<b>w/o EST/w/ EST</b>		
		<b>AA33</b>		
Iron Sight Only Qual		356/196		
CCO & BIS Qual		454/294		
Thermal Weapon Sight		304/304		
Infrared		268/268		

Notes:

<sup>1</sup> Indicates Required Events/ Standard.

<sup>2</sup> Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> OCONUS units will request A059 Ball in lieu of AA33. If Lead-free are required, request DODIC AA45.

**Table 13–4**  
**M16/M4 Collective Training**

Event	Type	DODIC	Rounds	Freq
<b>Collective Training</b>				
Sqd/Plt LFX	Ball/Tracer	AA33/A063	100/0	1
Plt/Co LFX <sup>(1)</sup>	Ball/Tracer	AA33/A063	180/20	1 <sup>1</sup>
CALFEX	Ball/Tracer	AA33/A063	120/10	0
Urban OPS	Red MRKR	AB09	60	1
Urban OPS	BLU MRKR	AB10	60	1
Sqd/Plt/Co FTX/STX	Blank	A080	40	1
Bn FTX	Blank	A080	40	1
EXEVAL <sup>1</sup>	Blank	A080	40	1 <sup>1</sup>
<b>Total Rounds For Collective Training</b>				
Ball	Ball	AA33	280	
Tracer	Tracer	A063	20	

**Table 13–4**  
**M16/M4 Collective Training—Continued**

Blank	Blank	A080	120
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Notes:  
<sup>1</sup> Indicates Standard.

*c. M9 Combat Pistol.*

(1) Standards. All personnel assigned a 9mm pistol will qualify every six months. Qualification consists of firing the Combat Pistol Qualification Course in accordance with FM 3–23.35.

(2) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–5.

**Table 13–5**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
Instructional Fire	Ball/Tracer <sup>2</sup>	AA49/N/A	40	2
Combat Pistol Qualification Course <sup>(1)</sup>	Ball	AA49	40	2
CPQC table VI NBC Fire <sup>(1)</sup>	Ball/EST	AA49	7	2
CPQC table VII Night Fire <sup>(1)</sup>	Ball/EST	AA49	5	2
Barricade Fire	Tracer <sup>2</sup>	N/A	40	2
<b>Total Rounds for Qualification</b>				
Ball/EST	Ball	AA49	184/160	
Tracer	Tracer <sup>2</sup>	N/A	160	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> USSOCOM procured.

<sup>3</sup> Units equipped with EST will conduct CPQC, NBC & Night Fire on EST.

*d. M2HB Machine Gun.*

(1) Standard. All Soldiers assigned the M2 .50 Cal MG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.65 every six months.

(2) Day requirements: Qualify on Day Qualification table II.

(3) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned; AN/PEQ–2A and AN/PAS–13 HTWS.

(4) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–6 and 13–7.

**Table 13–6**  
**M2 .50 Cal Requirement and Strategy**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Day Qualification</b>				
table I Day Zero/Practice	Mix	A557	140	2
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2
<b>Night Qualification</b>				
<b>AN/PEQ–2A</b>				
Night Zero <sup>1</sup>	Mix	A557	26	2
table III Night Practice	Mix	A557	126	2

**Table 13–6**  
**M2 .50 Cal Requirement and Strategy—Continued**

table IV Night Qualification <sup>1</sup>	Mix	A557	126	2
<b>AN/PAS–13 HTWS</b>				
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2
table III Night Practice	Mix	A557	126	2
table IV Night Qualification	Mix	A557	126	2
<b>Total Rounds</b>				
<b>Day Qualification</b>				
table I & II	Mix	A557	560	
<b>Night Qualification</b>				
AN/PEQ–2A Qualification	Mix	A557	556	
AN/PAS–13 HTWS Qualification	Mix	A557	576	

Notes:  
<sup>1</sup> Indicates Standard.

**Table 13–7**  
**M2 Collective Training**

Collective Training	Type	DODIC	Rounds	Freq
Sqd/Plt/Co LFX	Mix	A557	100	0
Plt/Co LFX <sup>1</sup>	Mix	A557	100	2
CALFEX	Mix	A557	100	0
Sqd/Plt/Co FTX/STX	Blank	A598	100	1
Bn FTX	Blank	A598	100	1
EXEVAL <sup>1</sup>	Blank	A598	100	1
<b>Total Rounds Collective Training</b>				
Mix	Mix	A557	200	
Blank	Blank	A598	300	

Notes:  
<sup>1</sup> Indicates Standard.

*e. M60/M240B Machine Gun.*

(1) Standard. All Soldiers assigned the M240B/M60 will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards every six months.

(2) Day Requirements: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course. When available, Soldiers will conduct iron sight 10-meter zero, 10-meter practice and 10-meter record fire on the EST 2000. Machine Gun Optic (MGO): Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(3) Night Requirements for the Thermal Weapon Sight and infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

(4) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–8.

**Table 13–8**  
**M60/M240B Qualification (FM 3–22.68)**

Event	DODIC	Type	Rounds	Freq
Preliminary Marksmanship Training	A111	Blank	50	2
<b>Iron Sight Qualification</b>				
<b>table I</b>				
10 M Zero/Practice	A143	Ball/EST	185	2
10 M Record <sup>1</sup>	A143	Ball/EST	91	2
<b>Subtotal with EST</b>	A143	Ball		0
<b>Subtotal without EST</b>	A143	Ball	552	
<b>table II</b>				
Iron Sight/MGO Transition Zero <sup>1</sup>	A131	Mix	28	2
Iron Sight/MGO Transition Practice	A131	Mix	154	2
Iron Sight/MGO Transition Record <sup>1</sup>	A131	Mix	154	2
<b>Subtotal</b>	A131	Mix	672	
<b>Thermal Weapon Sight Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	A131	Mix	36	2
TWS Night Field Fire III	A131	Mix	154	2
table VI TWS Practice	A131	Mix	154	2
table VI TWS Record <sup>1</sup>	A131	Mix	154	2
<b>Subtotal</b>	A131	Mix	996	
<b>Infrared Aiming Light Qualification</b>				
IR Zero <sup>1</sup>	A131	Mix	18	2
IR Night Field Fire III	A131	Mix	154	2
table VI IR Practice	A131	Mix	154	2
table VI IR Record <sup>1</sup>	A131	Mix	154	2
<b>Subtotal</b>	A131	Mix	960	
<b>Total Rounds for Qualification</b>				
PMI	A111	Blank	100	
Iron Sight Qualification (Ball/EST)	A143	Mil Pack	552/0	
Iron Sight Qualification (Mix)	A131	Mil Pack	672	
MGO Qualification	A131	Mil Pack	672	
TWS Qualification	A131	Mil Pack	996	
IR Qualification	A131	Mil Pack	960	

Notes:

<sup>1</sup> Indicates Standard.

*f. M249 AR.*

(1) Standard. All Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards every six months.

(2) Day Requirements: Conduct 10-meter and Transition Fire in accordance with FM 3–22.68.

(3) Night Requirements for the Thermal Weapon Sight and infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

(4) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–9.

**Table 13–9**  
**M249 AR Qualification (FM 3–22.68)<sup>2</sup>**

Event	DODIC	Type	Rounds	Freq
Preliminary Marksmanship Training	A075	Blank	50	2
<b>Iron Sight Qualification</b>				
<b>Firing table I</b>				
10m Zero <sup>1</sup>	A062	Ball/EST	6	2
10m Practice	A062	Ball/EST	51	2
10m Record <sup>1</sup>	A062	Ball/EST	51	2
<b>Subtotal with EST</b>				0
<b>Subtotal without EST</b>	A062	Ball		216
<b>Firing table II</b>				
Transition Zero <sup>1</sup>	A064	Mix	12	2
Transition Practice	A064	Mix	66	2
Transition Record <sup>1</sup>	A064	Mix	66	2
<b>Subtotal</b>	A064	Mix	288	
<b>Firing table III TC 23–AIMSS</b>				
<b>TWS Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	A064	Mix	36	2
TWS Night Field Fire III	A064	Mix	66	2
TWS Limited Visibility Practice	A064	Mix	66	2
TWS Limited Visibility Qualification <sup>1</sup>	A064	Mix	66	2
<b>Subtotal</b>	A064	Mix	468	
<b>IR Qualification</b>				
IR Zero <sup>1</sup>	A064	Mix	18	2
IR Night Field Fire III	A064	Mix	66	2
IR Practice	A064	Mix	66	2
IR Qualification <sup>1</sup>	A064	Mix	66	2
<b>Subtotal</b>	A064	Mix	432	
<b>Total Rounds for Qualification</b>				
PMI	A075	Blank	100	
Iron Sight Qualification Ball/w EST	A062	Mil Pack	216/0	
Iron Sight Qualification (4&1 Mix)	A064	Mil Pack	288	
TWS Qualification	A064	Mil Pack	468	
IR Qualification	A064	Mil Pack	432	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA44.

g. M249 LMG.

(1) Standard. All Soldiers assigned the M249 in the LMG role (LIN #M39263) will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards within the past six months.

(2) Day Requirements: **Iron Sight:** All Soldiers will qualify on the 10-meter and day transition record course. **Machine Gun Optic (MGO):** Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(3) Night Requirement for the Thermal Sight and Infrared aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposures.

(4) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–10.



**Table 13–10**  
**M249 LMG Qualification (FM 3–22.68)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Iron Sight Qualification</b>				
<b>table I</b>				
10 M Zero/Practice	Ball/EST	A062	185	2
10 M Record <sup>1</sup>	Ball/EST	A062	91	2
<b>table II</b>				
Iron Sight/MGO Transition Zero <sup>1</sup>	Mix	A064	28	2
Iron Sight/MGO Transition Practice	Mix	A064	154	2
Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A064	154	2
<b>Thermal Weapon Sight Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064	36	2
TWS Night Field Fire III	Mix	A064	154	2
table VI TWS Practice	Mix	A064	154	2
table VI TWS Record <sup>1</sup>	Mix	A064	154	2
<b>Infrared Aiming Light Qualification</b>				
IR Zero <sup>(1)</sup>	Mix	A064	18	2
IR Night Field Fire III	Mix	A064	154	2
table VI IR Practice	Mix	A064	154	2
table VI IR Record <sup>1</sup>	Mix	A064	154	2
<b>Total Rounds</b>				
Iron Sight Qualification (Ball/EST)	Ball	A062	552/0	
Iron Sight Qualification (Mix)	Mix	A064	672	
MGO Qualification	Mix	A064	672	
TWS Qualification	Mix	A064	996	
IR Qualification	Mix	A064	960	

Notes:

<sup>1</sup> Indicates Standard.

*h. M249 LMG/ M240 Collective Training.*

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13–11 lists collective training resourcing for Active Component Aviation Soldiers assigned the M249 in the LMG role. The LIN # for the M249 LMG is M39263.

**Table 13–11**  
**M249 LMG Collective Training**

Event	Type	DODIC	Rounds	Freq
<b>Collective Training</b>				
Plt/Co LFX <sup>1</sup>	Mix	A064	300	2
Sqd/Plt/Co FTX/STX	Blank	A075	200	1
EXEVAL <sup>1</sup>	Blank	A075	300	1
<b>Total Rounds For Collective Training</b>				
	Mix	A064	600	
	Blank	A075	500	

Notes:

<sup>1</sup> Indicates Standard.

*i. M203 Grenade Launcher.*

(1) Standard. All Soldiers assigned the M203 GL will zero and meet the day qualification standards in FM 3–22.31 every six months.

(2) Training Strategy: Recommended training strategies and ammunition resources are provided in table 13–12.

**Table 13–12**  
**M203 Qualification (FM 3–22.31)**

Event	Type	DODIC	Rounds	Freq
Instructional	HE	B546	5	2
Day Zero <sup>1</sup>	TP	B519	6	2
Day Qualification <sup>1</sup>	TP	B519	15	2
<b>Total Rounds</b>				
<b>Day Qualification</b>				
HE	HE	B546	10	
TP	TP	B519	42	

Notes:

<sup>1</sup> Indicates Standard.

*j. M203 Collective Training.*

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13–13 lists collective training resourcing for Active Component Aviation Soldiers.

**Table 13–13**  
**M203 Collective Training**

Event	Type	DODIC	Rounds	Freq
Platoon/Co LFX <sup>1</sup>	TP	B519	4	1

Notes:

<sup>1</sup> Indicates Standard

k. *M1200 Shotgun Standard.* Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19-95C1-SM.

**Table 13-14**  
**M1200 Qualification (STP 19-95C1-SM)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS		4	
Instructional Fire	Buckshot	A011	3	2
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2
<b>Total Rounds for Qualification</b>	Buckshot	A011	26	

Notes:

<sup>1</sup> Indicates Standard.

l. AT-4.

(1) Standard. Ten percent of the assigned Soldiers (E-5s and below) will qualify on Day Qualification table III and table IV in accordance with FM 3-23.25 every six months. Qualification is conducted using the M287 sub-caliber tracer trainer.

(2) Training Strategy. Recommended training strategies and ammunition resources are given in table 13-15.

**Table 13-15**  
**AT-4 Qualification (FM 3-23.25)**

Event	Type	DODIC	Rounds	Freq
table I Instructional Day	Tracer	A358	12	2
table II Instructional Night	Tracer	A358	12	2
table III Day Qualification <sup>1</sup>	Tracer	A358	8	2
table IV Night Qualification <sup>1</sup>	Tracer	A358	8	2
<b>Total Rounds</b>				
Qualification/Instructional Fire	Tracer	A358	80	

Notes:

<sup>1</sup> Indicates Standard.

m. *AT4 Collective Training.*

(1) Soldiers must be qualified with this weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13-16 lists collective training resourcing for Active Component Aviation Soldiers.

**Table 13–16**  
**AT–4 Collective Training<sup>2</sup>**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt/Co FTX	ATWESS	L367	6	2
EXEVAL <sup>1</sup>	ATWESS	L367	6	1
<b>Total per AT–4 Gunner</b>				
	ATWESS	L367	18	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Only 10 percent of E–5s and below are authorized to qualify on the AT–4. Collective training ammunition should be used to support training for Soldiers qualified on the AT–4.

*n. Hand Grenade.*

(1) Standard. All Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 every six months. Live grenade throw is not required for qualification.

(2) Training Strategy. Recommended training strategy and ammunition requirements are given in table 13–17.

**Table 13–17**  
**Hand Grenade (FM 3–23.30)**

Event	Type	DODIC	Rounds	Freq
Qualification				
Mock Bay	PRACT FZ	G878	2	2
Hand Grenade Qualification Course <sup>1</sup>	PRACT FZ	G878	6	2
<b>Total Rounds</b>				
	PRACT FZ	G878	16	
Live Grenade Throw	FRAG HE	G881	1	0.5 <sup>2</sup>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

*o. Hand Grenade Collective Training.*

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13–18 lists collective training resourcing for Active Component Aviation Soldiers.

**Table 13–18**  
**Hand Grenade Collective Training**

Event	Type	DODIC <sup>2</sup>	Rounds <sup>3</sup>	Freq
Plt/Co LFX <sup>1</sup>	PRACT FZ	G878	6	1

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> LFX utilizes inert hand grenade body G811 & G878 Practice Fuze.

<sup>3</sup> M228 per Squad

*p. M18A1/A2 Claymore Mine.*

(1) Standard. Soldiers will qualify on the M18 Claymore mine by emplacing, firing, and recovering an inert claymore mine in accordance with FM 23–23 every 12 months. Ninety percent of assigned Company personnel will observe a live claymore mine detonation (FM 23–23) within 12 months.

(2) Training Strategy. Recommended training strategy and ammunition requirements are given in table 13–19.

**Table 13–19**  
**M18A1/A2 Claymore Mine (FM 23–23)**

Event	Type	DODIC	Rounds	Freq
Employment Instruction/Qualification <sup>1</sup>	Inert	K139	N/A	1
No rounds required for qualification				
Live Claymore Detonation	HE	K143	2	1
<b>Total Rounds per Company</b>	HE	K143	2	

Notes:

<sup>1</sup> Indicates Standard.

*q. M18A1/A2 Claymore Mine Collective Training.*

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13–20 lists collective training resourcing for Active Component Aviation Soldiers.

**Table 13–20**  
**Claymore Collective Training**

Collective Training	Type	DODIC	Rounds	Freq
Sqd/Plt/Co FTX/STX	Inert	K139	N/A	1
Bn FTX	Inert	K139	N/A	1
EXEVAL <sup>1</sup>	Inert	K139	N/A	1
LFX Per All Other Plt <sup>1</sup>	M18A1/A2	K143	1	1
<b>Total Rounds Per Plt</b>		K143	1	

Notes:

<sup>1</sup> Indicates Standard.

*r. MK–19 Grenade Machine Gun / MK–47 ALGL.*

(1) Standard. All Soldiers assigned the MK–19 GMG will meet the day and night qualification standards in accordance with the tables and standards listed in FM 3–22.27 every six months. The MK–19 table in this section resource the maximum number of rounds authorized for qualification. Resourcing requirements are dependent upon range facilities, target type and sight utilized.

(2) Day requirements: Qualify on Day Qualification table II.

(3) Night requirements: Qualify on Night Qualification table IV with each of the following devices if assigned; AN/PEQ–2A and AN/PAS–13 HTWS.

(4) Training strategy. Recommended training strategy and ammunition requirements are given in table 13–21.

**Table 13–21**  
**MK 19 GMG / MK–47 ALGL Qualification (FM 3–22.27)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training			TADSS	4
<b>Day Qualification</b>				
table I Day Practice	TP	B584	62	2
table II Day Qualification <sup>1</sup>	TP	B584	62	2
<b>Night Qualification</b>				
<b>AN/PEQ–2A</b>				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2
<b>AN/PAS–13</b>				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2
<b>Total Rounds</b>				
<b>Day Qualification</b>				
table I & II	TP	B584	248	
<b>Night Qualification</b>				
AN/PEQ–2A	TP	B584	248	
AN/PAS–13	TP	B584	248	

Notes:

<sup>1</sup> 1. Indicates Standard

<sup>2</sup> 2 Night qualification is required for each NVD assigned.

*s. MK 19 GMG/ MK 47 AL GL Collective Training.*

(1) Soldiers must be qualified on their assigned weapon prior to conducting live fire training. Live fire training should be preceded with a dry fire and MILES blank fire iteration.

(2) Collective Training Requirements. Soldiers will participate in a Platoon / Company FTX / LFX every 12 months. Units will also participate in an EXEVAL every 12 months.

(3) table 13–22 lists collective training resourcing for Active Component Aviation Soldiers.

**Table 13–22**  
**MK–19 GMG / MK–47 ALGL Collective Training**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt/Co LFX <sup>1</sup>	TP	B584	30	2
<b>Total Rounds for Collective Training</b>		B584	60	

Notes:

<sup>1</sup> Indicates Standard.

*t. MH–60 (DAP) Aerial Gunnery Training and Support.*

(1) General.

(a) All basic mission trained (BMT) aviators will complete tables I, II, III, IV, VII and VIII before becoming basic mission qualified (BMQ). Specific requirements are given in table 13–23.

(b) All BMQ and FMQ pilots will complete tables VII and VIII monthly.

(2) Mission Support.

(a) MH–60 DAP aircraft frequently provide close air and suppressive fire assets for training in support of Special Operations Forces.

(b) To minimize total ammunition requirements, units may fire portions of tables VII and VIII in conjunction with ground force training.

(c) tables X and XII will be fired in support of ground forces training by FMQ pilots only, or a BMQ pilot flying with an IP.

**Table 13–23**  
**Annual Ammunition Requirements and Training Strategy for the MH–60 DAP**

Event	table	Freq	Level	HA13	HA12	H462	H183	A165	B118	B129	PD68
<b>Initial Qualification</b>											
Qual Day	I	1	Ind	2	10	4		3000	220		1
Qual Night	II	1	Ind	1	9	6	4	3000	220		1
RL Prog(D)	III	1	Ind	2	12	4	0	3000	220		
RL Prog(N)	IV	1	Ind	2	16	6	5	3000	220		
<b>Sub Total</b>				7	47	20	9	12000	880		2
<b>Per Aviator</b>				7	47	20	9	12000	880		2
<b>Sustainment</b>											
Boresight	VI	12	Ind	0	2	2	0	1500	110		
Live Fire	VII	12	Ind	3	11	5	1	1500	110	0	
Live Fire	VIII	12	Ind	3	14	5	2	1500	110	110	1
<b>Sub Total</b>				6	27	12	3	4500	330	110	1
<b>Per Aviator</b>				72	324	144	36	54000	3960	1320	1
<b>Combined Training</b>											
Team	X	4	crew	4	6	2	2	1500	110	110	
Combined	XII	4	crew	4	6	2	2	1500	110	110	1
<b>Sub Total</b>				8	12	4	4	3000	220	220	1
<b>Per Crew</b>				32	48	16	16	12000	880	880	2

*u.* AH–6 Aerial Gunnery Training and Support

(1) General.

(a) All Basic Mission Trained (BMT) aviators will complete tables I, II, III, IV, VII and VIII before becoming Basic Mission Qualified (BMQ). Specific requirements are included in table 13–24.

(b) All BMQ and FMQ pilots will complete tables VII and VIII monthly.

(2) Mission Support.

(a) AH–6 aircraft frequently provide close air and suppressive fire assets in support of Special Operations Forces.

(b) To minimize total ammunition requirements, units may fire tables VII and VIII in conjunction with ground force training.

(c) tables X and XII will be fired in support of ground forces training by FMQ pilots or a BMQ pilot with an IP.

**Table 13–24**  
**Annual Ammunition Requirements and Training Strategy for the AH–6**

Event	table	Freq	Level	HA13	HA12	H462	H183	A165	A576	PD68
<b>Initial Qualification</b>										
Qual Day	I	1	Ind	6	15	6		10000	600	1
Qual Night	II	1	Ind	4	10	8	7	10500	600	1
RL Prog(D)	III	1	Ind	2	7	6		9000		
RL Prog(N)	IV	1	Ind	4	15	8	5	0		
<b>Sub Total</b>				16	47	28	12	29500	1200	2
<b>Per Aviator</b>				16	47	28	12	29500	1200	2

**Table 13–24**  
**Annual Ammunition Requirements and Training Strategy for the AH–6—Continued**

Sustainment										
Boresight	VI	12	Ind	0	2	1	0	1500	200	
Live Fire	VII	12	Ind	3	11	2	2	1500	300	
Live Fire	VIII	12	Ind	4	18	2	3	1500	300	1
<b>Sub Total</b>				7	31	5	5	4500	800	1
<b>Per Aviator</b>				84	372	60	60	54000	9600	1
Combined Training										
Team	X	4	crew	5	8	1	3	3000	600	
Combined	XII	4	crew	6	8	2	3	3000	600	2
<b>Sub Total</b>				11	16	3	6	6000	1200	2
<b>Per Crew</b>				44	64	12	24	24000	4800	2

*v. Crew chief Door Gunnery with the M134 Minigun.*

(1) General.

(a) All Basic Mission Trained (BMT) crew chiefs will complete tables I, II, III, IV, VII and VIII before becoming Basic Mission Qualified (BMQ). Specific requirements are included in table 13–25 and 13–26.

(b) All BMQ and FMQ crew chiefs will complete tables VII and VIII every three months.

(2) Mission Support

(a) Crew chiefs frequently provide close air and suppressive fire assets in support of Special Operations Forces.

(b) To minimize total ammunition requirements, units may fire tables VII and VIII in conjunction with ground force training.

(c) At no time will crew chiefs who are not fully mission qualified (FMQ) fire tables VII and VIII in conjunction with ground forces.

(d) ARSOA crewmembers are authorized at 4.5 per MH–47D/E and 2.5 per MH–60L/K.

**Table 13–25.**  
**Ammunition Requirements and Training Strategy for Door Gunnery (MH–60, MH–47)**

DODIC			
Event	A111	A165	Freq
Initial Qualification			
10 m Practice table I		750	1
10 m Record table II		750	1
Day/Night Familiarization table III	3,000	6,000	1
RL Prog Qual Test table IV		6,000	1
Gunnery Skills Qual table V	1,500	1,500	1
Total per Crew Member	4500	15000	



**Table 13–26**  
**Sustainment training for Door Gunnery (MH–60, MH47)**

Event	DODIC		Freq
	A111	A165	
Calibration/Verification table VI	0	100	4
Live Fire Practice table VII	0	200	4
Live Fire / Eval table VIII	0	200	4
Team table X	500	500	4
Combined table XII	500	500	4
<b>Total Per Crew Member</b>	4000	6,000	

### 13–3. Pyrotechnics and Miscellaneous Ammunition Items

*a.* Standards. Simulate the greatest possible degree of realism during the conduct of joint live fire exercises for ground troops.

*b.* Training Strategy. Pyrotechnics used are to provide greater realism for individual ground troops during Joint Readiness Training Exercises (JRTs), Combined Arms Live Fire Exercises (CALFEXs), Capabilities Exercises (CAPEXs) and other joint exercises. table 13–27 is based on historical data from previous exercises.

*c.* Cutters (M500).

(1) Standards. Applicable personnel will be trained and proficient in the execution of heavy equipment airborne operations in conduct of a Forward Area Refueling and Rearming Point (FARRP).

(2) Training Strategy. Training must be realistic. Execution of actual heavy equipment airborne operations must be conducted. All equipment must be made readily available including the Charge Reefing Cutters used for cutting parachute lines from the equipment.

(3) The following computation will be used for figuring the amount of cutters required during the training year: 4 cutters/drop x 8 drops/mission x 2 missions/month x 12 months = 768. Quantity included in table 13–27.

*d.* K768 CS–1 Riot Control Agent.

(1) Standards. Personnel must demonstrate NBC skills and confidence in a CS–1 environment.

(2) Training Strategy. All personnel will attend quarterly NBC training conducted by the unit NBC NCO.

**Table 13–27**  
**Annual Pyrotechnic Requirement per Battalion**

DODIC	Nomenclature	Requirements per Battalion
G940	HG Smoke, Green	42
G945	HG Smoke, Yellow	100
G950	HG Smoke, Red	40
G955	HG Smoke, Violet	48
G982	HG Smoke, HC	200
K768	CS Riot	24
L305	Sig Illum Para	12
L306	Sig Illum Para	48
L307	Sig Illum Para	60
L311	Sig III RS	12
L312	Sig III WS	36
L314	Sig III GS	36
L495	Flare Trip	60
L594	Sim Proj	240
L596	Sim Arty	20
L598	Sim Flash	60

**Table 13–27**  
**Annual Pyrotechnic Requirement per Battalion—Continued**

L599	Sim Illum	60
L600	Sim Whistle	20
L601	Sim HG	160
M500	Cutter Reef	768
L367	ATWESS	18

#### **13–4. Aircraft Survivability Equipment Expendables (ASE).**

*a.* Standards. All crews will fire one load of Flare and Chaff annually while flying against threat emitters. Quantities are included in table 13–28.

*b.* Training Strategy. Each crew will employ Flare and Chaff exercising the ALE–47 system to maintain proficiency. Electronic Threat ranges will be used when possible providing crews the opportunity to utilize and validate Techniques, Tactics and Procedures.

**Table 13–28**  
**Ammunition Requirement and Training Strategy for Aircraft Survivability Equipment (ASE)**

Event	Level	DODIC/Type			
		A965	L410	MG62	
MH-60L/K ASE		Chaff	Flare	CTG	
Live Fire	Crew	30	60	60	1
Team	Crew	30	60	60	1
Total per Crew		60	120	120	
MH-47D/E					
Live Fire	Crew	120	120	120	1
Team	Crew	120	120	120	1
Total per Crew		240	240	240	

## **Chapter 14**

### **Civil Affairs/Psychological Operations**

#### **14–1. Description**

*a.* This chapter provides standards, training strategies and resource requirements for weapons assigned to and utilized by Civil Affairs and Psychological Operations units, for both Active Component (AC) and Reserve Component (RC). The training programs provided are specifically designed for each weapon system. Each program contains a strategy and standard, which outlines the training resources and includes suggested frequencies of live fire, sub caliber and device usage.

*b.* The objective is to assist commanders in attaining and sustaining acceptable levels of weapons and tactical proficiency in support of Civil Affairs/Psychological Operations missions. The training programs provide a method for the attainment and sustainment of weapons proficiency throughout the training year.

#### **14–2. Training Aids, Devices, Simulators and Simulations (TADSS)**

*a.* Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-Armor training strategies are wholly reliant on TADSS for qualification. Small arms TADSS are listed in Appendix B.

*b.* Civil Affairs and Psychological Operations units contain TADSS information on devices that are found in most units.

#### **14–3. Individual Weapons Training, Requirements and Qualification**

*a.* 9mm Pistol. (See table 14–1)

(1) Standard. All personnel assigned a 9mm pistol will qualify in accordance with FM 3–23.35 every six months.

(2) Training Strategy. Recommended training strategies and ammunition requirements are given in the table listed below.

**Table 14–1**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC <sup>3</sup>	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	2
Instructional Fire	Ball	AA49	40	2	1
Combat Pistol Qualification Course <sup>1</sup>	Ball	AA49	40	2	1
CPQC table V Night Fire <sup>1,2</sup>	Ball/EST	AA49	7/0	2	1
CPQC table VI NBC Fire <sup>1,2</sup>	Ball/EST	AA49	5/0	2	1
<b>Total Rounds for Qualification</b>					
Ball/EST <sup>2</sup>		AA49	184/160		

Notes:

<sup>1</sup> Indicates Standards.

<sup>2</sup> Installations equipped with EST will conduct M9 Night and NBC qualification on the EST 2000.

<sup>3</sup> OCOUNUS units will request DODIC A363 in lieu of AA49.

*b. M16 Rifle/M4 Carbine Standard.* (See table 14–2) Primary and Secondary day sight: The primary sight is either the CCO/Advanced Combat Optical Gunsight (ACOG) or Iron Sight. If equipped with the CCO or ACOG, that is the primary sight and the iron sight is the secondary sight. If not equipped with a CCO or ACOG, the iron sight is the primary sight Day.

(1) Requirements without EST 2000: Ninety percent of Active Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 within the past six months with the primary day sight and night sight/aiming light. Soldiers with a secondary day sight will qualify with that sight annually.

(2) Eighty percent of National Guard and Army Reserve Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 every 12 months for the events listed below. The Army Reserve and Army National Guard will alternate primary and secondary sight qualification every year, if equipped. OCONUS units will request A059 Ball in lieu of AA33. If Lead-free is required request AA45.

(3) Day Requirements with EST 2000:

(a) Iron Sight/Back Up Iron Sight (BIS): All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000.

(b) Close Combat Optic (CCO): Soldiers assigned the CCO will qualify on the day record course.

(4) Night Requirements for the Thermal Weapon Sight and Infrared Aiming Light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day course with one modification; the timed target exposures are increased by two seconds for each target presented.

**Table 14–2**  
**M16/M4 Qualification (FM 3–22.9)**

				Freq	
Event	Type	DODIC <sup>2</sup>	Rounds	AC	USAR
Phase I					
Preliminary Marksmanship Training	TADSS		0	4	2
Phase II					
Iron Sight Zero <sup>1</sup>	Ball		18	2	1
Subtotal	Ball			36	18
Iron Sight Qualification					
Phase III					
Iron Sight Practice Record	Ball	AA33	40	2	1

**Table 14–2**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

Iron Sight Record <sup>1</sup>	Ball	AA33	40	2	1
NBC Practice	Ball/EST	AA33	20	2	1
NBC Record <sup>1</sup>	Ball/EST	AA33	20	2	1
Unassisted Night Practice	Ball/EST	AA33	20/10	2	1
Unassisted Night Record <sup>1</sup>	Ball/EST	AA33	20/10	2	1
<b>Subtotal with EST</b>	Ball/Tracer	AA33/A063		160/0	80/0
<b>Subtotal without EST</b>	Ball/Tracer	AA33/A063		320/40	160/20
<b>CCO Qualification</b>					
<b>Phase IV</b>					
CCO Zero <sup>1,3</sup>	Ball	AA33	18	2	1
CCO Practice	Ball	AA33	40	2	1
CCO Record <sup>1,3</sup>	Ball	AA33	40	2	1
<b>Subtotal For CCO</b>	Ball			196	98
<b>TWS Qualification</b>					
TWS Zero (WFOV & NFOV) <sup>1,3</sup>	Ball	AA33	36	2	1
TWS Night Field Fire I	Ball	AA33	36	2	1
TWS Practice	Ball	AA33	40	2	1
TWS Record <sup>1,3</sup>	Ball	AA33	40	2	1
<b>Subtotal For TWS</b>	Ball			304	152
<b>IR Qualification</b>					
IR Zero <sup>1,3</sup>	Ball	AA33	18	2	1
IR Night Field Fire I	Ball	AA33	36	2	1
IR Practice	Ball	AA33	40	2	1
IR Record <sup>1,3</sup>	Ball	AA33	40	2	1
<b>Subtotal For IR</b>	Ball	AA33		268	134
<b>Rounds For Qualification</b>					
Iron Sight Qualification w/o EST		AA33/A063		356/40	178/20
Iron Sight Qualification with EST		AA33		196	98/0
CCO Qualification <sup>3</sup>		AA33		196	98
TWS Qualification <sup>3</sup>		AA33		304	152
IR Qualification <sup>3</sup>		AA33		268	134
<b>Collective Training</b>					
Co/BN FTX		A080	140	2	1
Co/BN LFX		A059/A063	130/30	1	0

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> OCOUNUS units will request A059 Ball in lieu of AA33. If Lead-free is required, request DODIC AA45.

<sup>3</sup> Only soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

*c. M203 Grenade Launcher. (See table 14–3)*

(1) Standard. All personnel assigned a M203 Grenade Launcher will qualify in accordance with FM 23–31 every six months.

(2) Training Strategy. Recommended training strategies and ammunition requirements are given in the table listed below.

**Table 14–3**  
**M203 GL Qualification (FM 23–31)**

Event	Type	DODIC	Rounds	Freq	
				AC	USAR
Day Zero <sup>1</sup>	TP	B519	6	2	1
Day Qualification <sup>1</sup>	TP	B519	15	2	1
<b>Total Rounds for Qualification</b>					
Day Qualification					
TP	Mil Pack	B519		42	21
<b>Collective Training</b>					
Co LFX		B519	4	1	0
Notes:					
<sup>1</sup> Indicates Standard.					

*d. M249AR Standard. (See table 14–4)*

(1) Ninety percent of Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 23–14 and night qualification standards in ST 23–AIMSS (Advanced Infantry Marksmanship Strategies and Standards) within the past six months.

(2) Eighty percent of National Guard and Army Reserve soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in ST 23–AIMSS every 12 months.

(3) Day Requirements without EST 2000: Conduct 10-meter and Transition Fire in accordance with FM 3–22.68.

(4) Day Requirements with EST 2000: Conduct 10-meter and Transition Fire in accordance with FM 3–22.68.

(5) Night Requirements for the Thermal Weapon Sight and Infrared Aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 14–4**  
**M249AR Qualification (FM 3–22.68)**

Event	Type	DODIC	Rounds	Freq	
				AC	USAR/NG
Preliminary Marksmanship Training	TADSS		0	4	4
<b>Iron Sight Qualification</b>					
<b>Firing table I</b>					
10m Zero <sup>1</sup>	Ball/EST	A062	6	2	1
10m Practice	Ball/EST	A062	51	2	1
10m Record <sup>1</sup>	Ball/EST	A062	51	2	1
<b>Subtotal with EST</b>	EST	N/A		0	0
<b>Subtotal without EST</b>	Ball	A062		216	108
<b>Firing table II</b>					
Transition Zero <sup>1</sup>	Mix	A064	12	2	1
Transition Practice	Mix	A064	66	2	1
Transition Record <sup>1</sup>	Mix	A064	66	2	1
<b>Subtotal</b>	Mix	A064		288	144
<b>Firing table III ST 23–AIMSS</b>					
<b>TWS Qualification</b>					
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064	36	2	1
TWS Night Field Fire III	Mix	A064	66	2	1
TWS Limited Visibility Practice	Mix	A064	66	2	1

**Table 14–4**  
**M249AR Qualification (FM 3–22.68)—Continued**

TWS Limited Visibility Qualification <sup>1</sup>	Mix	A064	66	2	1
<b>Subtotal</b>				468	234
<b>IR Qualification</b>					
IR Zero <sup>1</sup>	Mix	A064	18	2	1
IR Night Field Fire III	Mix	A064	66	2	1
IR Practice	Mix	A064	66	2	1
IR Qualification <sup>1</sup>	Mix	A064	66	2	1
<b>Subtotal</b>	Mix	A064		432	216
<b>Total Rounds for Qualification</b>					
Iron Sight Qualification Ball/wEST	Mil Pack	A062		216/0	108/0
Iron Sight Qualification (4&1 Mix)	Mil Pack	A064		288	144
TWS Qualification	Mil Pack	A064		468	234
IR Qualification	Mil Pack	A064		432	216
<b>Collective Training</b>					
SQD/PLT/Co STX/FTX		A075	300	2	1
EXEVAL		A075	300	1	0.5
SQD/PLT LFX		A064	300	1	0

Notes:

<sup>1</sup> Indicates Standard.

*e. M249LMG/M240B MG Standard.* (See table 14–5) All Soldiers assigned the M249LMG/M240B will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in ST 23–AIMSS within the past six months.

(1) Day Requirements without EST 2000: Iron Sight: All Soldiers will qualify on the 10-meter and day transition record course. Machine Gun Optic (MGO): Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(2) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(3) Night Requirements for the Thermal Weapon Sight and Infrared Aiming light: Soldiers will qualify on the night transition record course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.

**Table 14–5**  
**M249 LMG/M240B Qualification (FM 3–22.68)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq	
				AC	RC
Preliminary Marksmanship Training	TADSS		0	4	2
<b>Iron Sight Qualification</b>					
<b>table IV</b>					
10 M Zero/Practice	Ball/EST	A062/A143	197	2	1
10 M Record <sup>1</sup>	Ball/EST	A062/A143	91	2	1
<b>Subtotal with EST</b>	EST	N/A	0	0	0
<b>Subtotal without EST</b>	Ball/EST	A062/A143		576	288
<b>table V</b>					
Iron Sight/MGO Transition Zero <sup>1</sup>	Mix	A064/A131	28	2	1
Iron Sight/MGO Transition Practice	Mix	A064/A131	154	2	1

**Table 14–5**  
**M249 LMG/M240B Qualification (FM 3–22.68)—Continued**

Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A064/A131	154	2	1
<b>Thermal Weapon Sight Qualification</b>					
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064/A131	36	2	1
TWS Night Field Fire III	Mix	A064/A131	154	2	1
table VI TWS Practice	Mix	A064/A131	154	2	1
table VI TWS Record <sup>1</sup>	Mix	A064/A131	154	2	1
<b>Infrared Aiming Light Qualification</b>					
IR Zero <sup>1</sup>	Mix	A064/A131	18	2	1
IR Night Field Fire III	Mix	A064/A131	154	2	1
table IV IR Practice	Mix	A064/A131	154	2	1
table VI IR Record <sup>1</sup>	Mix	A064/A131	154	2	1
<b>Total Rounds for Qualification</b>					
Iron Sight Qualification (Ball/EST)		A062/A143	576/0	1	0.5
Iron Sight Qualification (Mix)		A064/A131	672	1	0.5
MGO Qualification		A064/A131	672	1	0.5
TWS Qualification		A064/A131	996	1	0.5
IR Qualification		A064/A131	960	1	0.5
<b>Collective Training</b>					
Co/BN FTX	Blank	A111/A075	300	1	0.5
Co/BN FTX	Mix	A131/A064	300	1	0.5

Notes:

<sup>1</sup> Indicates Standard.

*f. M1200 Shotgun Standard. (See table 14–6)*

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 14–6**  
**M1200 Qualification (STP 19–95C1–SM)**

Event	Type	DODIC	Rounds	Freq	
				AC	USAR/NG
Preliminary Marksmanship Training	TADSS		0	4	4
Instructional Fire	Buckshot	A011	3	2	1
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2	1
<b>Total Rounds for Qualification</b>					
Buckshot	Commercial Pack		A011	26	13

Notes:

<sup>1</sup> Indicates Standard.

g. CS Chamber Strategy (See table 14–7)

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 14–7**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> The CS Chamber must be primed with 5 capsules to begin training.

*h. Pyrotechnics and Miscellaneous Ammunition Items.*

(1) Standards. Simulate the greatest possible degree of realism during the conduct of training exercises for units.

(2) Training Strategy. Pyrotechnics are used to provide greater realism for units during training exercises. table 14–8 is based on historical data from previous exercises.

**Table 14–8**  
**Pyrotechnic Requirements**

Pyrotechnic	Nomenclature	HQ &SPT Co	POG/CA BN
G982	Smoke Grenade, HC	15	25
G940	Smoke Grenade, Green	3	6
G945	Smoke Grenade, Yellow	7	6
G950	Smoke Grenade, Red	12	24
G955	Smoke Grenade, Violet	5	5
G963	Smoke Grenade, CS	5	5
K768	Riot Control CS	0	1
K511	SMK Pot Floating M4A2	4	6
L305	Sig Illum Grn Para	1	4
L306	Sig Illum Red Para	4	16
L307	Sig Illum White Para	4	16
L311	Sig Illum Red Star	1	4
L312	Sig Illum White Star	4	16
L314	Sig Illum Green Star	4	16
L410	M1/C/M Flare	0	16
L495	Flare Surface Trip	6	6
L594	Sim Proj Ground Burst	15	25
L596	Sim Arty Gun Flash	1	4
L598	Sim Boobytrap Flash	9	10
L599	Sim Boobytrap Illum	5	5
L600	Sim Boobytrap Whistle	6	8
L601	Sim Hand Grenade	17	12



## Chapter 15

### SOSCOM

#### 15–1. Description

*a.* This chapter provides weapon standards, training strategies and resource requirements for the Special Operations Support Command (SOSCOM). The training programs provided are specifically designed for each weapon system with SOSCOM units. Each program contains a standard and strategy that outlines the training requirements and includes suggested frequencies of live fire, sub-caliber, and use of devices.

*b.* The objective is to assist SOSCOM commanders in conducting the training necessary to ensure proficiency of all weapon systems. These training programs are recommended as a method to attain and sustain weapon proficiency throughout the training year.

#### 15–2. Individual Weapons Training Requirements (TADSS)

*a.* Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-Armor training strategies are wholly reliant on TADSS for qualification. Small arms TADSS are listed in Appendix B.

*b.* Special Operations Support Command (SOSCOM) units contain TADSS information on devices that are found in most units.

#### 15–3. SOSCOM Training Requirements.

Task Remarks:

*a.* Instructional: Required to instruct Soldiers on the capabilities of weapons and ammunition. Zero: Required prior to annual qualification.

*b.* Record Qual/Night Fire/NBC Fire: Qualification includes those activities required for qualification set forth in the FM appropriate to the weapon system.

*c.* Section/Platoon LFX: Every section/platoon is required to conduct a live fire defense and/or convoy counter ambush LFX every 12 months.

*d.* Initial Deployment Package (IDP): IDP assumption occurs four times a year. Two companies and one third of the Headquarters assumes IDP 2 time's each.

*e.* 9mm Automatic Weapon(See table 15–1)

(1) Standard. All Soldiers assigned a 9-mm pistol will qualify every six months. Qualification consists of firing the combat pistol qualification course in accordance with FM 3–23.35 and firing for record in mission oriented protective posture (MOPP) 4.

(2) Training Strategy. Recommended training strategies and ammunition requirements are provided in the table listed below.

**Table 15–1**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
Instructional Fire	BALL	AA49	40	2
Combat Pistol Qualification Course <sup>1</sup>	BALL	AA49	40	2
CPQC table V Night Fire <sup>1,3</sup>	BALL/EST	AA49	5/0	2
CPQC table V NBC Fire <sup>1,3</sup>	BALL/EST	AA49	7/0	2
<b>Total Rounds for Qualification</b>				
Ball/EST <sup>2</sup>	Comm Pack	AA49		184/160
IDP Preparation	Ball		14	0.5

Notes:

<sup>1</sup> 1. Indicates Standard.

<sup>2</sup> 2. OCONUS units will request DODIC A363 in lieu of AA49.

<sup>3</sup> 3. Installations equipped with EST 2000, will conduct NBC & Night Fire on EST 2000.

*f. M16 Rifle/M4 Carbine Standard.* All Soldiers assigned a rifle will zero and meet the qualification standards in FM 3–22.9 within the past six months for the events listed below.

(1) Day Requirements without EST 2000: **Iron Sight:** All Soldiers will qualify on the day and NBC record course. **Close Combat Optic (CCO):** Soldiers assigned the CCO will qualify on the day record course.

(2) Day Requirements with EST 2000: **Iron Sight:** All Soldiers will qualify on the day record course. The NBC record course will be conducted on the EST 2000. **Close Combat Optic (CCO):** Soldiers assigned the CCO will qualify on the day record course.

(3) Night Qualification Requirements: All Soldiers will conduct night unassisted qualification in accordance with FM 3–22.9. Units equipped with the EST 2000 will conduct night unassisted qualification on the EST 2000. Night assisted qualification is conducted for each of the following devices assigned: Thermal Weapon Sight (TWS) and Infrared Aiming Light.(See table 15–2)

**Table 15–2**  
**M16/M4 Qualification (FM 3–22.9)**

Event	Type	DODIC <sup>3</sup>	Rounds	Freq
<b>Phase I</b>				
Preliminary Marksmanship Training	TADSS		0	4
<b>Phase II</b>				
Iron Sight Zero <sup>1</sup>	Ball	AA33	18	2
<b>Subtotal</b>	Ball	AA33	36	
<b>Iron Sight Qualification</b>				
<b>Phase III</b>				
Iron Sight Practice Record	Ball	AA33	40	2
Iron Sight Record <sup>1</sup>	Ball	AA33	40	2
NBC Practice	Ball/EST	AA33	20	2
NBC Record <sup>1</sup>	Ball/EST	AA33	20	2
Unassisted Night Practice	Ball/Tracer/EST	AA33/A063	20/10	2
Unassisted Night Record <sup>1</sup>	Ball/Tracer/EST	AA33/A063	20/10	2
<b>Subtotal with EST</b>	Ball/Tracer	AA33/A063	160/0	
<b>Subtotal without EST</b>	Ball/Tracer	AA33/A063	320/40	
<b>CCO Qualification</b>				
<b>Phase IV</b>				
CCO Zero <sup>1,2</sup>	Ball	AA33	18	2
CCO Practice	Ball	AA33	40	2
CCO Record <sup>1,2</sup>	Ball	AA33	40	2
<b>Subtotal For CCO</b>	Ball	AA33	196	
<b>TWS Qualification</b>				
TWS Zero (WFOV & NFOV) <sup>1,2</sup>	Ball	AA33	36	2
TWS Night Field Fire I	Ball	AA33	36	2
TWS Practice	Ball	AA33	40	2
TWS Record <sup>1,2</sup>	Ball	AA33	40	2
<b>Subtotal For TWS</b>	Ball	AA33	304	
<b>IR Qualification</b>				
IR Zero <sup>1,2</sup>	Ball	AA33	18	2
IR Night Field Fire I	Ball	AA33	36	2
IR Practice	Ball	AA33	40	2
IR Record <sup>1,2</sup>	Ball	AA33	40	2

**Table 15–2**  
**M16/M4 Qualification (FM 3–22.9)—Continued**

<b>Subtotal For IR</b>	Ball	AA33	268
<b>Rounds For Qualification</b>			
Iron Sight Qualification w/o EST	Ball/Tracer	AA33/A063	356/40
Iron Sight Qualification with EST	Ball	AA33	196
CCO Qualification <sup>2</sup>	Ball	AA33	196
TWS Qualification <sup>2</sup>	Ball	AA33	304
IR Qualification <sup>2</sup>	Ball	AA33	268

Notes:

<sup>1</sup> 1. Indicates Required Events/ Standard.

<sup>2</sup> 2. Only Soldiers assigned the CCO, TWS, or IR Aiming Light are authorized to conduct that qualification.

<sup>3</sup> 3. OCONUS units will request A059 Ball in lieu of AA33. If Lead-free are required, request DODIC AA45.

**Table 15–3**  
**M16A2/M4 Collective Training**

<b>Event</b>	<b>Type</b>	<b>DODIC</b>	<b>Rounds</b>	<b>Freq</b>
SQD/Platoon FTX	Blank	A080	120	1
SQD/Platoon LFX	Ball/Tracer	AA33/A063	80/20	1
Battalion FTX	Blank	A080	80	1
EXEVAL	Blank	A080	80	1
Major Exercise	Blank	A080	80	1
IDP Preparation	Ball	AA33	40	0.5

*g. M203 Grenade Launcher (See table 15–4 and 15–5)*

(1) Standards. All Soldiers assigned an M203 will qualify every six months. Qualification consists of firing table 8–2, FM 3–23.31.

(2) Training strategy. Recommended training strategies and ammunition requirements are provided in the table below. (See table 15–4)

**Table 15–4**  
**M203 Qualification (FM 3–23.31)**

<b>Event</b>	<b>Type</b>	<b>DODIC</b>	<b>Rounds</b>	<b>Freq</b>
Day Zero <sup>1</sup>	TP	B519	6	2
Day Qualification <sup>1</sup>	TP	B519	15	2
<b>Total Rounds for Day Qualification</b>				
Total	TP	B519	42	

Notes:

<sup>1</sup> Indicates Standard.

**Table 15–5**  
**M203 Collective Training (FM 3–23.31)**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt LFX	TP	B519	4	1
IDP Preparation	TP	B519	12	0.5
<b>Total Rounds</b>				
TP	TP	B519	4 <sup>1</sup> /16 <sup>2</sup>	

Notes:

<sup>1</sup> These rounds will be received each year.

<sup>2</sup> These rounds will be allocated biannually.

*h. M249 LMG / M240B MG Standard.* All Soldiers assigned the M249 in the LMG role (LIN #M39263) and M240B will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in ST 23–AIMSS within the past six months.

(1) Day Requirements without EST 2000: **Iron Sight:** All Soldiers will qualify on the 10-meter and day transition record course. **Machine Gun Optic (MGO):** Soldiers assigned the MGO will qualify on the 10-meter and day transition record course.

(2) Day Requirements with EST 2000: 10-meter fire is conducted on the EST 2000. Transition fire is conducted in accordance with FM 3–22.68.

(3) Night Requirements for the thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.(See table 15–6 and 15–7)

**Table 15–6**  
**M249 LMG/M240B Qualification (FM 3–22.68)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
<b>Iron Sight Qualification</b>				
<b>table IV</b>				
10 M Zero/Practice	Ball/EST	A062/A143	185	2
10 M Record <sup>1</sup>	Ball/EST	A062/A143	91	2
Subtotal with EST	Ball/EST	A062/A143		0
Subtotal without EST				552
<b>table V</b>				
Iron Sight/MGO Transition Zero <sup>1</sup>	Mix	A064/A131	28	2
Iron Sight/MGO Transition Practice	Mix	A064/A131	154	2
Iron Sight/MGO Transition Record <sup>1</sup>	Mix	A064/A131	154	2
<b>Thermal Weapon Sight Qualification</b>				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064/A131	36	2
TWS Night Field Fire III	Mix	A064/A131	154	2
table VI TWS Practice	Mix	A064/A131	154	2
table VI TWS Record	Mix	A064/A131	154	2
<b>Infrared Aiming Light Qualification</b>				
IR Zero <sup>1</sup>	Mix	A064/A131	18	2
IR Night Field Fire III	Mix	A064/A131	154	2
table IV IR Practice	Mix	A064/A131	154	2
table VI IR Record <sup>1</sup>	Mix	A064/A131	154	2

**Table 15–6**  
**M249 LMG/M240B Qualification (FM 3–22.68)—Continued**

Total Rounds for Qualification			
Iron Sight Qualification (Ball/EST)	Mil Pack	A062/A143	552/0
Iron Sight Qualification (Mix)	Mil Pack	A064/A131	672
MGO Qualification	Mil Pack	A064/A131	672
TWS Qualification	Mil Pack	A064/A131	996
IR Qualification	Mil Pack	A064/A131	960

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> Lead-free ball is DODIC AA45.

**Table 15–7**  
**M249 LMG/M240B Collective Training**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt LFX	Mix	A064/A131	300	1
Sqd/Plt FTX	Blank	A075/A111	200	1
Bn FTX	Blank	A075/A111	200	1
IDP Preparation	Mix	A064/A131	40	0.5
Total Rounds For Collective Training				
Mix	Mix	A064/A131	300/340	
Blank	Blank	A075/A111	400	

*i. M249 AR Standard.* All Soldiers assigned the M249 AR will zero and meet the day qualification standards in FM 3–22.68 and night qualification standards in ST 23–AIMSS within the past six months.

(1) Day Requirements without EST 2000: Conduct 10-meter and Transition Fire in accordance with FM 3–22.68.

(2) Night Requirements for the thermal Weapon Sight and Infrared aiming light: Soldiers will qualify on the night transition course with each NVD assigned. The night transition record course is the day transition course with one modification; the timed target exposures are increased by two seconds for each target exposure.(See table 15–8 and 15–9)

**Table 15–8**  
**M249AR Qualification (FM 3–22.68)**

Event	Type	DODIC <sup>2</sup>	Rounds	Freq
Preliminary Marksmanship Training	TADSS		0	4
Iron Sight Qualification				
Firing table I				
10m Zero <sup>1</sup>	Ball/EST	A062	6	2
10m Practice	Ball/EST	A062	51	2
10m Record <sup>1</sup>	Ball/EST	A062	51	2
<b>Subtotal with EST</b>	Ball	A062	0	
<b>Subtotal without EST</b>	Ball	A062		216
Firing table II				
Transition Zero <sup>1</sup>	Mix	A064	12	2
Transition Practice	Mix	A064	66	2
Transition Record <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>	Mix	A064	288	

**Table 15–8**  
**M249AR Qualification (FM 3–22.68)—Continued**

Firing table III ST 23–AIMSS				
TWS Qualification				
TWS Zero (NFOV & WFOV) <sup>1</sup>	Mix	A064	36	2
TWS Night Field Fire III	Mix	A064	66	2
TWS Limited Visibility Practice	Mix	A064	66	2
TWS Limited Visibility Qualification <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>	Mix	A064	468	
IR Qualification				
IR Zero <sup>1</sup>	Mix	A064	18	2
IR Night Field Fire III	Mix	A064	66	2
IR Practice	Mix	A064	66	2
IR Qualification <sup>1</sup>	Mix	A064	66	2
<b>Subtotal</b>	Mix	A064	432	
Total Rounds for Qualification				
Iron Sight Qualification Ball/w EST	Mil Pack	A062	216/0	
Iron Sight Qualification (4&1 Mix)	Mil Pack	A064	288	
TWS Qualification	Mil Pack	A064	468	
IR Qualification	Mil Pack	A064	432	

Notes:  
<sup>1</sup> Indicates Standard.  
<sup>2</sup> Lead-free ball is DODIC AA44.

**Table 15–9**  
**M249AR Collective Training<sup>1</sup>**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX	Blank	A075	300	1
EXEVAL	Blank	A075	300	1
Sqd/Plt LFX <sup>1</sup>	Mix	A064	300	1
Bn FTX	Blank	A075	300	1
IDP Preparation	Mix	A064	40	0.5
Total Rounds Collective Training				
Mix	Mix	A064	300/340	
Blank	Blank	A075	900	

Notes:

<sup>1</sup> Live fire exercises will consist of a day blank rehearsal, a day live fire, a night blank fire rehearsal, and a night live fire all of which must be executed to standard.

*j. M2 HB Machine Gun (See table 15–10 and 15–11)*

(1) Standard. All M2 Machine Gunners will qualify every six months. Qualification consists of firing transition record course (FM 3–22.65).

(2) Training strategy. Recommended training strategies and ammunition requirements are provided in the table listed below.

**Table 15–10**  
**M2 .50 Cal Qualification (FM 23–65)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training		TADSS	4	
<b>Day Qualification</b>				
table I Day Zero/Practice	Mix	A557	140	2
table II Day Zero/Qualification <sup>1</sup>	Mix	A557	140	2
<b>Night Qualification</b>				
<b>AN/PEQ–2A</b>				
Night Zero <sup>1</sup>	Mix	A557	26	2
table III Night Practice	Mix	A557	126	2
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2
<b>AN/PAS–13 HTWS</b>				
Night Zero (NFOV & WFOV) <sup>1</sup>	Mix	A557	36	2
table III Night Practice	Mix	A557	126	2
table IV Night Qualification <sup>1</sup>	Mix	A557	126	2
<b>Total Rounds for Qualification</b>				
<b>Day Qualification</b>				
table I & II	Mix	A577	560	
<b>Night Qualification</b>				
AN/PEQ–2A Qualification	Mix	A577	556	
AN/PAS–13 HTWS Qualification	Mix	A577	576	

Notes:

<sup>1</sup> Indicates Standard.

**Table 15–11**  
**M2 HB MG<sup>1</sup>**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX/STX DAY	Blank	A598	100	1
Sqd/Plt LFX DAY	Ball	A555	100	1
Sqd/Plt FTX/STX NIGHT	Blank	A598	100	1
Sqd/Plt LFX NIGHT	Mix	A557	100	1
BN FTX	Blank	A598	100	1
IDP Preparation	Ball	A555	154	0.5
<b>Total Rounds Collective Training</b>				
Ball	Ball	A555	100 <sup>2</sup> /254 <sup>3</sup>	
Mix	Ball	A557	100	
Blank	Blank	A598	300	

Notes:

<sup>1</sup> Live fire exercises will consist of a day blank rehearsal, a day live fire, a night blank fire rehearsal, and a night live fire all of which must be executed to standard.

<sup>2</sup> These rounds will be received each year.

<sup>3</sup> These rounds will be allocated biannually.

k. *MK-19 Grenade Machine Gun* (See table 15-12 and 15-13)

(1) Standard. All SOSCOM MK-19 gunners will qualify every six months. Qualification consists of firing the range card course in accordance with FM 3-22.27 and firing at night.

(2) Training strategy. Recommended training strategies and ammunition requirements are provided in the table listed below.

<b>Table 15-12</b> <b>MK 19 GMG Qualification (FM 3-22.27)</b>				
Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS			
<b>Day Qualification</b>				
table I Day Practice	TP	B584	62	2
table II Day Qualification <sup>1</sup>	TP	B584	62	2
<b>Night Qualification</b>				
<b>AN/PEQ-2A</b>				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2
<b>AN/PAS-13</b>				
table III Night Practice	TP	B584	62	2
table IV Night Qualification <sup>1,2</sup>	TP	B584	62	2
<b>Total Rounds for Qualification</b>				
<b>Day Qualification</b>				
table I & II	TP	B584	248	
<b>Night Qualification</b>				
AN/PEQ-2A	TP	B584	248	
AN/PAS-13	TP	B584	248	
Notes:				
<sup>1</sup> Indicates Standard.				
<sup>2</sup> Night qualification is required for each NVD assigned.				

<b>Table 15-13</b> <b>MK 19 GMG Collective Training<sup>1</sup></b>				
Event	Type	DODIC	Rounds	Freq
Primary Marksmanship Training	TADSS			
Gunnery Skills Test				
Moving Target Instructional	TP	B584	32	1
Crew Instructional (2 Soldiers)	HE	B571	96	1
Sqd/Plt LFX	TP	B584	30	1
IDP Preparation	TP	B584	5	0.5
<b>Total Rounds For Collective Training</b>				
TP		62 <sup>2</sup> /67 <sup>3</sup>		
HE		96		

Notes:

<sup>1</sup> HE fired on LFXs (2 cans of 48 per crew).

<sup>2</sup> These rounds will be received each year.

<sup>3</sup> These rounds will be allocated biannually.



*l. M1200 Shotgun Standard.(See table 15–14)*

(1) Ninety percent of Soldiers assigned a shotgun will meet the individual qualification requirements to standard every six months. Individual requirements consist of those task identified in STP 19–95C1–SM.

(2) Eighty percent of Army Reserve and National Guard Soldiers assigned a shotgun will meet the individual qualification requirements to standard every 12 months.

**Table 15–14**  
**M1200 Qualification (STP–19–95C1–SM)**

Event	Type	DODIC	Rounds	Freq
Preliminary Marksmanship Training	TADSS	N/A	0	4
Instructional Fire	Buckshot	A011	3	2
Qualification Fire <sup>1</sup>	Buckshot	A011	10	2
<b>Total Rounds for Qualification</b>	Buckshot	A011	26	

Notes:

<sup>1</sup> Indicates Standard.

*m. AT–4 Standard.(See table 15–15 and 15–16)*

(1) Ten percent of assigned Soldiers (SGT and below) will have met the individual requirements to standard by successfully engaging six of eight targets with the 9-mm tracer trainer (FM 3–23.35 & ST 23–AIMSS) within the past 12 months.

(2) Training strategy. Recommended training strategies and ammunition requirements are provided in the table listed below.

**Table 15–15**  
**AT–4 Qualification (FM 3–23.25 & TC ST–AIMSS)**

Event	Type	DODIC	Rounds	Freq
table I Instructional Day	9-mm Tracer	A358	12	1
table II Instructional Night	9-mm Tracer	A358	12	1
table III Day Qualification <sup>1,2</sup>	9-mm Tracer	A358	8	1
table IV Night Qualification <sup>1</sup>	9-mm Tracer	A358	8	0
table V Advanced Fire	9-mm Tracer	A358	6	0
<b>Total Rounds for Qualification</b>				
Qualification/Instructional Fire	9-mm Tracer	A358	32	

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 10 percent of assigned Soldiers E–5 and below must met the individual requirements to standard in accordance with FM 3–23.35.

**Table 15–16.**  
**AT–4 Collective Training**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX	ATWESS	L367	6	1
Sqd/Plt LFX	9mm	A358	2	1
IDP Preparation	9mm	A358	8	0.5
<b>Total Rounds For Collective Training</b>				
9mm		2 <sup>1</sup> /10 <sup>2</sup>		

**Table 15–16.**  
**AT–4 Collective Training—Continued**

ATWESS	6
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Notes:

<sup>1</sup> These rounds will be received each year.

<sup>2</sup> These rounds will be allocated biannually.

*n. M18A1/A2 Claymore mine Standard.(See table 15–17 and 15–18)*

(1) All Soldiers must emplace, arm, and disarm one inert Claymore Mine (FM 23–23) every six months, and collectively observe as a platoon/section the emplacement, arming, and detonation of one live claymore mine within the past 12 months.

(2) Training strategy. Recommended training strategies and ammunition requirements are provided in the table listed below.

**Table 15–17.**  
**M18A1/A2 Claymore Mine**

Event	Type	DODIC	Rounds	Freq
Employment Instruction/Qualification <sup>1</sup>	Inert	K139	N/A	1
No rounds required for qualification				

Notes:

<sup>1</sup> Indicates Standard.

**Table 15–18.**  
**M18A1/A2 Claymore Mine Collective Training (FM 23–23)<sup>1,2</sup>**

Event	Type	DODIC	Rounds	Freq
Sqd/PltFTX	Inert	K139		1
Sec/Plt Instructional	HE	K143	1	1
<b>Total Rounds</b>				
Inert				
M18A1/A2		12		

Notes:

<sup>1</sup> Mines per section/PLT (x12 Sec/Plt).

<sup>2</sup> Rounds required per battalion.

*o. Hand grenade Standard.( See table 15–19 and 15–20)*

(1) All Soldiers will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3–23.30 within the past 12 months. Live grenade throw is not required for qualification.

(2) Training strategy Recommended training strategies and ammunition requirements are provided in the table listed below.

**Table 15–19**  
**Hand Grenade (FM 3–23.30)**

Event	Type	DODIC	Rounds	Freq
<b>Qualification</b>				
Mock Bay			2	1
Hand Grenade Qualification Course <sup>1</sup>	Fuze	G878	6	1
<b>Total For Qualification</b>	Fuze	G878	8	1
Live Grenade Throw	HE	G881	1	0.5 <sup>2</sup>

Notes:

<sup>1</sup> Indicates Standard.

<sup>2</sup> 0.5 indicates one Hand Grenade every two years.

**Table 15–20**  
**Hand Grenades Collective Training**

Event	Type	DODIC	Rounds	Freq
Sqd/Plt FTX	Fuze	G878	6	1
<b>Total Rounds For Collective Training per Squad</b>				
Inert	Inert	G811		
Fuze	Fuze	G878	6	

*p. CS Chamber Strategy* (See table 3–12)

(1) The CS Chamber is used to validate serviceability and establish confidence in the protection afforded by the protective mask.

(2) Soldiers assigned a protective mask will participate in a Confidence Chamber exercise within the past 12 months.

**Table 15–21**  
**CS Chamber/Protective Mask**

Event	DODIC	Capsules	Freq	
			AC	RC
CS Chamber <sup>1</sup>	K765	1 per 10 Soldiers	1	1
Prime Chamber <sup>2</sup>	K765	5 per Company	1	1

Notes:

<sup>1</sup> One capsule per 10 Soldiers will be used during this exercise to maintain the chamber.

<sup>2</sup> 2. The CS Chamber must be primed with 5 capsules to begin training.

*q. Pyrotechnics.* Use the table provided below for annual pyrotechnic requirements.(See table 15–21)

**Table 15–21.**  
**Pyrotechnic Requirements**

Type	DODIC	Sqd/Plt FTX	SEP CO	Bn TOTAL
HG Smoke, HC	G982	4	16	48
HG Smoke, Green	G940	2	8	24
HG Smoke, Yellow	G945	2	8	24
HG Smoke, Red	G950	5	20	60
HG Smoke, Violet	G955	2	4	24
HG Smoke, CS	G963	2	4	24

**Table 15–21.**  
**Pyrotechnic Requirements—Continued**

Riot Control CS	K768	0	0	2
SMK POT FIT	K511	1	4	12
Sig Illum Grn Para	L305	2	8	24
Sig Illum Red Para	L306	5	20	60
Sig Illum White Para	L307	2	8	24
Sig Illum Red Star	L311	5	20	60
Sig Illum White Star	L312	5	20	60
Sig Illum Green Star	L314	2	8	24
Flare Surface Trip	L495	5	20	60
Sim Proj Ground Burst	L594	20	8	24
Sim Arty Gun Flash	L596	5	20	60
Sim Booby trap Flash	L598	5	20	60
Sim Hand Grenade	L601	20	8	24

## Chapter 16

### Contingency Operations (CONOPS) and Mobilization Guidance

#### 16–1. Description.

*a.* This chapter provides the training ammunition resourcing requirements for all Pre-Contingency Operations, Post-Contingency Operations, and RC mobilization and non-lethal munitions training. Contingency Operations (CONOPS) are considered any real-world operation conducted in a hostile-fire zone or as part of a peacekeeping force. The tables in this chapter provide the training ammunition requirements by DODIC. Actual quantities of ammunition needed to conduct this training will be provided through internal management of annual authorizations.

*b.* One objective of this chapter is to assist RC field commanders in quickly attaining the highest possible levels of weapons proficiency during mobilization for deployment. Another objective is to assist ammunition managers in forecasting ammunition requirements and preclude reducing home-station training ammunition in order to fully resource CONOPS and post-mobilization training.

#### 16–2. CONOPS Guidance Standards, Strategies, and Requirements

*a.* This section provides guidance for all Active Component (AC) forces during CONOPS. Each strategy outlines the training sequence including frequencies for live-fire and simulator training.

*b.* Upon notification of a real-world deployment commanders must assess their individual unit's training status and modify their training strategies to achieve the standards outlined for AC units.

*c.* Deploying units will coordinate with units in country to identify and issue all equipment not organic to the unit. Training for identified non-organic equipment will be coordinated and scheduled by Mobile Training Teams (MTT) prior to deployment.

*d.* Prior to deployment, all Soldiers must qualify with their assigned and/or designated weapons systems, to include crew-served weapons within 90 days of the deployment date.

*e.* During deployment it may be necessary for several additional personnel to be qualified on a specific weapon system in order to execute certain mission requirements, such as performing duties as a sentry or other required mission-specific tasks.

*f.* Under this certification program, it is possible for units to qualify multiple personnel on individual and crew-served weapons required by the mission.

*g.* Unit training objectives for mobilization are derived from specific weapon system standards outlined in this manual.

#### 16–3. Training assumptions, Objectives, and Priorities During CONOPS

*a.* The following assumptions apply to the strategies, standards, and resources in this chapter.

(1) Units will maintain crew, section, squad and platoon integrity while conducting CONOPS training.

(2) All weapons qualification standards and training objectives will be met within the specified timeframe. These assumptions are made to provide a “baseline” from which to determine training ammunition requirements. The commander determines training priorities during CONOPS. Not all units will start at the same level of proficiency; some will have exceeded their standards while others will not have met theirs. Commanders at all levels will need to

assess their unit's strengths and weaknesses in weapons training tasks. Based on their assessment, commanders may determine specific mission requirements that need to be repeated prior to going on to more advanced tasks from these assessments, commanders may modify their training strategies in order to achieve optimum levels of proficiency.

*b.* Weapons training tasks in priority are.

- (1) Individual weapons proficiency.
- (2) Crew-served weapons proficiency.
- (3) Common weapons proficiency.
- (4) Non-standard weapons proficiency.
- (5) Non-lethal weapons proficiency.

#### **16–4. Ammunition Authorizations/Requirements for CONOPS**

*a.* During the conduct of CONOPS, Soldiers may be required to operate weapon systems not normally assigned to the unit or in quantities that exceed the unit's MTOE. In order to meet the CONOPS mission requirements, additional training and weapon qualification/certification may be required. The theater commander will determine the total number of weapons to be manned. Mission requirements, additional training/qualification may be required.

*b.* Units assigned a CONOPS mission should first program and conduct training/qualification with the ammunition identified on the appropriate tables located in this manual for all assigned MTOE weapons. Soldiers that will be assigned more than one weapon or who will be manning an individual or crew-served weapon that they are not normally associated with, use tables 16–1 and 16–2 to determine additional ammunition requirements. Requests for CONOPS ammunition should follow the procedures in AR 5–13, Training Ammunition Management System, Appendix C. Contingency operations requirements will vary by theater.

*c.* For planning purposes, use the following guidelines regardless of MTOE weapons configuration. The TF is resourced to qualify an additional 10 percent of Soldiers in accordance with table 16–1 on the M16/M4 rifle and 9MM pistol. Crew-served weapons (M249LMG, M240B, M2 HB, and MK–19) are resourced for two gunners to qualify per system, based on the total weapon systems to be manned in the theater during CONOPS.

*d.* Proponents can request additional training based on mission and school requirements.

**Table 16–1**  
**Contingency Operations Individual Weapons**

EVENT	DODIC	TYPE	ROUNDS
<b>Pistol, M9</b>	AA49	Ball	
Day Practice		Ball	40
Day Record		Ball	40
<b>Rifle, M16/M4</b>	AA33/ A063		
Zero		18 Ball	
Day Practice		Ball	40
Day Record		Ball	40
Night Zero <sup>1</sup>		Ball	36
Night Practice <sup>1</sup>		Ball/Tracer <sup>1</sup>	40/10
Night Record <sup>1</sup>		Ball/Tracer <sup>1</sup>	40/10
<b>M249 AR</b>	A064/ AA44		
Zero		Ball	18
10M		Ball	102
Day Practice		Mix	66
Day Record		Mix	66
Night Zero <sup>1</sup>		Mix	18
Night Practice <sup>1</sup>		Mix	66
Night Record <sup>1</sup>		Mix	66
<b>Shotgun, M1200</b>	A011		
Day Practice		3	

**Table 16–1**  
**Contingency Operations Individual Weapons—Continued**

Day Record	10	
Night Zero		
Night Practice <sup>1</sup>		
Night Record <sup>1</sup>		
<b>M203 GL</b>	<b>B519/B546</b>	
Zero	TP	6
Day Record	TP	15
Night Practice <sup>1</sup>	TP	3
Night Record <sup>1</sup>	HE	9

Notes:

<sup>1</sup> Training can be conducted either using NVDs or Night Unassisted.

**Table 16–2**  
**Contingency Operations-Crew Serve Weapons**

EVENTS	DODIC	TYPE	ROUNDS
<b>M249 LMG</b>	<b>AA44/A064</b>		
10M		Ball	276
Zero		Mix	28
Day Practice		Mix	154
Day Record		Mix	154
Night Zero <sup>1</sup>		Mix	28
Night Practice <sup>1</sup>		Mix	154
Night Record <sup>1</sup>		Mix	154
<b>MMG, M240</b>	<b>A131/A143</b>		
10M		Ball	276
Zero		Mix	28
Day Practice		Mix	154
Day Record		Mix	154
Night Zero <sup>1</sup>		Mix	28
Night Practice <sup>1</sup>		Mix	154
Night Record <sup>1</sup>		Mix	154
<b>M2 HB MG</b>	<b>A557/A555</b>		
Day Practice		Mix	140
Day Record		Mix	140
Night Zero <sup>1</sup>		Mix	26
Night Practice <sup>1</sup>		Mix	126
Night Record <sup>1</sup>		Mix	126
<b>MK19 GMG</b>	<b>B584</b>		
Day Practice		TP	62
Day Record		TP	62
Night Practice <sup>1</sup>		TP	62
Night Record <sup>1</sup>		TP	62

Notes:

<sup>1</sup> Training can be conducted either using NVDs or Night Unassisted.

e. While conducting sustainment training during CONOPS each commander/G3 is authorized the ammunition listed in tables 16–3 through 16–10. Total quantities will be based on the TF organization and weapons density.

f. The Commander/G3 will use this sustainment resourcing in support of specific training requirements that are generated by the mission. These training events may include:

(1) Qualification of additional crews on crew-served weapons in support of force protection, patrol requirements, or unit weapon assignments due to mission constraints or requirements.

(2) Qualification on additional weapons for Soldiers being required to man or carry weapons not normally assigned to them at home station.

(3) Instructional firing or increased weapon skills required by the TF Commander.

(4) Mission Rehearsals Exercises (MRE) or Live-Fire Exercises (LFX).

(5) Weapons live fire required after maintenance or services conducted on the weapon system for the Live Fire Accuracy Screening Test (LFAST), zeroing, or calibration.

**Table 16–3**  
**Individual/Crew Served Weapons (table per Task Force Assigned Weapon)**

Weapons	DODIC	Zero <sup>1</sup>	Instructional Fire <sup>2</sup>	LFX <sup>3</sup>	STX <sup>3</sup>
9mm	A363	0	15	30	0
M16/M4	A059	18	30	130	0
	A063	0	10	20	0
	A080	0	0	0	60
M240	A131/A143 <sup>4</sup>	18	100	300	0
	A111	0	0	0	200
M249	A064/A0624 <sup>4</sup>	18	100	300	0
	A075	0	0	0	100
.50 cal	A557/A555 <sup>4</sup>	5	50	50	0
	A598	0	0	0	50
Shotgun	A011	0	3	10	0
Sniper Rifle	A171	10	30	0	0
	A552	18	23	0	0
	A525	9	54	0	0
	A531	9	40	0	0
	A606	9	30	0	0
AT–4 <sup>5</sup>	A358	0	20	0	0
	C995	0	1	0	0
MK–19	B584	0	100	120	0
	B542	0	15	0	0
M203	B519	6	10	18	0
	B546	0	5	0	0
	B535	0	0	3	3

Notes:

<sup>1</sup> Zero is resourced on a quarterly basis while deployed.

<sup>2</sup> Instructional Fire/Advanced skills' training is resourced on a quarterly basis while deployed.

<sup>3</sup> LFX/STX training is resourced quarterly while deployed.

<sup>4</sup> Either DODIC may be used based on range conditions and ammunition availability.

<sup>5</sup> Per 50 Soldiers.

**Table 16–4**  
**Pyrotechnics**

	<b>DODIC</b>	<b>LFX/STX<sup>1,2</sup></b>
	L601	10
	L367	75
	L596	5
	L314	3
	G978	10
	G955	10
	G940	5
	L307	5
	L306	5
	L311	5
	L312	5

Notes:

<sup>1</sup> LFX/STX training is resourced quarterly while deployed.

<sup>2</sup> Quantities are resourced by Company.

**Table 16–5**  
**Mortar Weapons (table per Task Force Assigned Weapon)**

<b>Munitions</b>	<b>DODIC</b>	<b>Instructional Fire<sup>1</sup></b>	<b>LFX<sup>2</sup></b>
60mm	B643	0	40
	BA15 (FRTR)	40	0
	B646 (WP)	7	2
	B647/BA04 (Illum)	3	8
81mm	C868	0	40
	C875 (FRTR)	46	0
	C870 (WP)	7	7
	C871 (Illum)	3	4
120mm	C623/C788 <sup>3</sup>	0	33
	CA09 (FRTR)	53	0
	CA03 (WP)	7	8
	C625 (Illum)	3	3

Notes:

<sup>1</sup> Instructional Fire/Advanced skills' training is resourced on a quarterly basis while deployed.

<sup>2</sup> LFX/STX training is resourced every quarter while deployed.

<sup>3</sup> Either DODIC may be used based on range conditions and ammunition availability.



**Table 16–6**  
**M2/M3 Bradley (Per Assigned Vehicle)**

Munitions	DODIC	Zero <sup>1</sup>	Instructional Fire <sup>2</sup>	LFX <sup>3</sup>
25mm	A940	8	0	48
	A976	0	0	48
	A975	0	25	0
M240B	A131/A143	100	0	450
Smoke	G978	0	8	0
TOW	WH05 <sup>4,5</sup>	0	1	0
	WH05 <sup>4,5</sup>	0	1	0

Notes:

<sup>1</sup> Zero is resourced on a quarterly basis while deployed.

<sup>2</sup> Instructional Fire/Advanced skills' training is resourced on a quarterly basis while deployed.

<sup>3</sup> LFX/STX training is resourced quarterly while deployed.

<sup>4</sup> TOW DODIC based on availability of Inert warhead available rounds in theater of operation.

<sup>5</sup> HE/Service TOW Missiles fired as available.

**Table 16–7**  
**M1A1/A2 Tank (table per Task Force Assigned Weapon)**

Weapons	DODIC	Zero <sup>1</sup>	Instructional Fire <sup>2</sup>	LFX <sup>3</sup>
7.62mm	A131/A143 <sup>4</sup>	100	0	350
.50 Cal	A557/A555 <sup>4</sup>	50	0	100
	AA38	0	40	0
120mm	C784	2	0	2
	C785	2	0	15
Smoke	G978	0	8	0

Notes:

<sup>1</sup> Zero is resourced on a quarterly basis while deployed.

<sup>2</sup> Instructional Fire/Advanced skills' training is resourced on a quarterly basis while deployed.

<sup>3</sup> LFX/STX training is resourced quarterly while deployed.

<sup>4</sup> Either DODIC may be used based on range conditions and ammunition availability.

**Table 16–8**  
**Engineer Items**

Munitions	DODIC	Advanced Skills Training <sup>2</sup>
MICLIC <sup>1</sup>	M913	1 <sup>1</sup>
	J143	1
	M914	1
Bangalore	M028	1 Kit
	MN69	5
	MN06	1
	MN08	1
C–4	M420	1
	M039	3
	M023	12
	M456	75ft
	MN08	2

**Table 16–8**  
**Engineer Items—Continued**

	MN06	1
	MN90	1
	MN88	1
	MN69	6

Notes:

<sup>1</sup> MICLIC resourced 1 per company on a quarterly basis. (Combat Engineers only).

<sup>2</sup> Instructional Fire/Advanced skills' training is resourced per squad on a quarterly basis while deployed.

**Table 16–9**  
**Artillery Weapon Platforms (Per Task Force Assigned Weapon)<sup>4</sup>**

Weapons	DODIC	Type	Calibration <sup>1</sup>	Registration Fire <sup>2</sup>	LFX <sup>3</sup>
105mm	C445	HE	2	8	20
	C452	SMOKE	0	0	5
	C454	WP	0	0	5
155mm	C449	ILLUM	0	0	10
	D544	HE	2	8	20
	D528	SMOKE	0	0	5
	D550	WP	0	0	5
	D505	Illum	0	0	10

Notes:

<sup>1</sup> Calibration is resourced on a quarterly basis while deployed.

<sup>2</sup> Instructional Fire/Advanced skills' training is resourced on a quarterly basis while deployed.

<sup>3</sup> LFX/STX training is resourced per battery on a quarterly basis while deployed.

<sup>4</sup> Fuses and charges authorized based on complete round calculations for authorized rounds.

**Table 16–10**  
**AVN Weapon Platforms (UH60, CH47, AH64, OH58)<sup>2,4</sup>**

Weapons	DODIC	Wpn Systems Cal/Ver <sup>1</sup>	LFX <sup>3</sup>
OH–58	HA13	7	12
	HA17	0	2
	PD68	0	13
AH–64	A557/A555	200	200
	HA13	12	8
	HA17	0	6
	PD68	0	23
	B118	150	150
CH47	A131/A143	200	200
UH60	A131/143	200	200

Notes:

<sup>1</sup> Weapon Systems Cal/Ver is resourced on a quarterly basis while deployed.

<sup>2</sup> Door gunner Cal/Ver is resourced on a quarterly basis while deployed.

<sup>3</sup> LFX/STX training is resourced quarterly while deployed.

<sup>4</sup> Hellfire Missiles are not STRAC resourced, but when available due to stockpile reliability. Surveillance/stock rotation/shelf life management, live missiles will be used semiannually.

### **16-5. Mobilization Training Guidance Standards, strategies, and Requirements for Mobilization**

- a.* This section provides guidance for RC units upon mobilization.
- b.* Upon notification of deployment and where the mission dictates, units will conduct non-lethal munitions training in accordance with Chapter 16, Para 16-3. As a rule, this training is conducted when deployed personnel arrive at their deployment location.
- c.* Upon mobilization, training programs for RC units will mirror the AC STRAC semi-annual strategies.

### **16-6. Mobilization Training Assessments, Objectives, and Priorities.**

- a.* Commanders make the following assessments to provide a “baseline” from which to determine training ammunition requirements:
  - (1) Has the unit met any of the training standards outlined in the weapons training programs contained in this pamphlet?
  - (2) Can crew, section, squad, and platoon integrity be maintained while conducting mobilization training?
- b.* Unit mobilization training objectives are derived from the specific weapon system training standards outlined in this manual.
- c.* The commander determines the training priorities during mobilization.
- d.* The commander’s training assumptions, objectives, and priorities are validated by the Training Support Division (TSD). Resources to meet the unit’s training requirements are based on this validation.

### **16-7. Developing Mobilization Training Strategies**

- a.* All Soldiers/crews must qualify with their assigned and/or designated weapons prior to deployment if they have not qualified within past 90 days.
- b.* Upon mobilization, commanders assess their unit’s training proficiency and modify their training strategies to achieve the standards outlined for their specific unit. In developing effective training strategies, commanders consider the following:
  - (1) Status of Training. Commanders must identify where their individual Soldiers/crews are in their annual training programs to determine which training tasks (individual and collective) have not been completed. Commanders may elect to have experienced crews trained under a modified strategy that recognizes their level of proficiency.
  - (2) Training Proficiency. Commanders must assess the level of proficiency their units have attained in mission-essential weapons training tasks. Based on their assessment, commanders may determine that some tasks/events need to be repeated prior to going on to more advanced tasks.
  - (3) Mission Requirements. When mission requirements are known in advance of deployment, commanders may elect to modify training strategies to focus on tasks that are critical for mission success. For example, an Infantry anti-Armor Platoon that will deploy in a peacekeeping role may elect to concentrate on small arms weapons proficiency.
  - (4) Supporting Resources. Commanders must modify their training strategies, taking into account the availability of key training resources such as training ammunition, TADSS, ranges, support personnel and time.

### **16-8. Training Ammunition Authorizations**

- a.* Training ammunition requirements and authorizations for mobilization are based on the amounts of ammunition needed to train all units to standard.
- b.* Commanders request training ammunition to support requirements determined in accordance with Para 16-6, and any annual mandatory training requirements not completed during the previous six months.
- c.* Upon alert for mobilization, the State Ammunition Manager (STAM) for ARNG/USAR units, or the Training Ammunition Manager (TAM) at the USAR Regional Support Command (RSC) for USAR units, informs his/her parent Army Commands (ACOM) and Army Services Component Commands Ammunition Manager of a unit’s potential mobilization.

### **16-9. Non-Lethal Munitions**

- a.* All units being deployed on missions which require the employment of non-lethal munitions will ensure all Soldiers/crews qualify with their assigned and/or designated weapons if they have not qualified within past 90 days. Due to constraints on the availability of non-lethal munitions, this training may be done once Soldiers arrive at their deployment site.
- b.* Upon notification of deployment, commanders must ensure all Soldiers who might be required to employ non-lethal munitions are properly trained in accordance with guidance outlined at [www.wood.army.mil/usamps/default.htm](http://www.wood.army.mil/usamps/default.htm) DOTD, WARMOD, Military Police, and NLCS TSP.
- c.* Non-Lethal Munitions Standard. Ninety percent of the Soldiers identified to train with non-lethal munitions will have met the individual requirements to standard with their assigned weapons. The recommended training strategies and ammunition resources are listed in tables 16-11 and 16-12.

**Table 16–11**  
**M–203 Non-lethal munitions requirements training strategy**

Events	40 MM Sponge Grenade/ M 1006 BA06	40 MM Crowd Dispersal/ M1029 BA13
Instructional Fire	10 Point Round	4 Area Round
Behind Shields	5 Point Round	3 Area Round
Plt Info	5 Point Round	3 Area Round
Sustainment Training	5 Point Round	5 Area Round

**Table 16–12**  
**M–1200 Non-lethal munitions requirements training strategy**

Events	12 Gauge Point Cartridge/ M1012 AA51	12 Gauge Area Cartridge/M1013 AA52
Instructional Fire	10 Point Round	4 Area Round
Behind Shields	5 Point Round	3 Area Round
Plt Info	5 Point Round	3 Area Round
Sustainment Training	5 Point Round	5 Area Round

## Chapter 17

### DA Police, Civilian Special Reaction Team (SRT) Personnel and NG Counter Drug Teams

#### 17–1. Description.

*a.* This chapter provides weapon training standards, strategies and resource authorizations for DA Police, Civilian SRT Personnel and NG personnel assigned to a Counter Drug Team. DA Police are authorized in accordance with the tables of Distribution and Allowances (TDA) of U.S. Army garrisons and their requirements are managed using the same UIC as the garrison to which they belong. The U.S. government does not provide ammunition support to contract security guards. The organizations/companies for which they work are responsible for ensuring they are fully trained and qualified to perform their police and/or SRT functions.

(1) One objective of this chapter is to assist Installation/Garrison managers in attaining and sustaining weapons training proficiency of their DA police and civilian SRTs in accordance with their make-up. When available, weapons-system specific training devices (such as Engagement Skills Trainer 2000) should be used to aid individual and collective skill development. Note: All qualification requirements for NG Counter Drug Teams must be conducted using live rounds.

(2) DA Police Individual Weapon Training, Requirements and Qualification: This section contains weapon qualification and resource requirements for DA Police.

*b.* *M9 Automatic Pistol Qualification.* DA Police assigned the M9 pistol will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) every six months. (See table 17–1)

**Table 17–1**  
**M9 Qualification (FM 3–23.35)**

Event	Type	DODIC	Rounds	Freq
Instructional Fire	Ball	AA49	50	2
FQC Qualification	Ball	AA49	50	2
<b>Total</b>			200	

*c.* *12 Gauge Shotgun Qualifications.* DA Police assigned a shotgun will meet the individual qualification requirements to standard once per year. (See table 17–2)

**Table 17-2**  
**12 Gauge Shotgun Qualification (STP-19-95C1-SM)**

Event	Type	DODIC	Rounds	Freq
Instructional Fire	Buckshot	A011	3	1
Qualification Fire	Buckshot	A011	10	1
<b>Total</b>			13	

*d. Hand Grenade Qualification.* DA Police will qualify on the Hand Grenade Qualification Course (HGQC) in accordance with FM 3-23.30 every 12 months. (See table 17-3)

**Table 17-3**  
**Hand Grenade Qualification (FM 3-23.30)**

Event	Type	DODIC	Rounds	Freq
Hand Grenade Qualification Course	M228	G878	8	1
<b>Total</b>			8	

## 17-2. Civilian Special Reaction Team (SRT) Personnel

Civilian Personnel that are attached to a Special Reaction Team will refer to FM 3-19.11, Chapter 8 paragraph 8-9 for weapons training standards, strategies, and resourcing requirements.

## 17-3. NG Counter Drug Team Individual Weapon Qualification Requirements

This section provides weapon training standards, strategies and resource authorizations for NG Counter Drug Teams. The standards and strategies presented in this section are designated for either Ground Reconnaissance/Criminal Analyst/Civil Operations (GR/CA/CO) assigned Soldiers or Ground Reconnaissance Expeditionary Team Soldiers.

### *a. M9 Automatic Pistol Qualification.*

(1) Ninety percent of GR/CA/CO assigned Soldiers will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) in FM 3-23.35 every six months. Each Soldier will fire the Military Police Night Firearms Sustainment Course (MPNFSC) every six months. Note: If the MPFQC is not available, the Combat Pistol Qualification Course (CPQC) will be utilized.

(2) One hundred percent of Ground Reconnaissance Expeditionary Team assigned Soldiers will meet the qualification standards of the Military Police Firearms Qualification Course (MPFQC) in FM 3-23.35 every three months. Each Soldier will fire the Military Police Night Firearms Sustainment Course (MPNFSC) every three months. Note: If the MPFQC is not available, the Combat Pistol Qualification Course (CPQC) will be utilized. (See table 17-4)

**Table 17-4**  
**M9 Qualification(3-23.35)**

EVENT	DODIC	TYPE	Rounds	GR/CA/CO	Freq
					Ground Recon Expeditionary Tm
Preliminary Marksmanship Training		TADSS	N/A	2	4
Instructional Fire	AA49	Ball	40	2	4
MPFQC Qualification	AA49	Ball	40	2	4
MPNFSC	AA49	Ball	20	2	4
<b>Total Rounds for Qualification</b>					
	AA49	Ball		200	400

### *b. M16/M4 Qualification. ( See table 17-5)*

(1) Ninety percent of GR/CA/CO assigned Soldiers will zero and meet the day qualification standards in FM 3-22.9 every six months and the night unassisted qualification standards every twelve months.

(2) One hundred percent of Ground Reconnaissance Expeditionary Team assigned Soldiers will meet the iron sight day qualification standards in FM 3-22.9 every three months and the unassisted night qualification standards every six months. Soldiers assigned the CCO, TWS or IR aiming light will meet the qualification standards with the equipment every six months. ( See table 17-5)

**Table 17–5**  
**M16/M4 Qualification (FM 3–22.9)**

EVENT	DODIC	TYPE	Rounds	GR/CA/CO	Freq	
					Ground Recon	Expeditionary Tm
Phase I						
Preliminary Marksmanship Training	TADSS	N/A	2		4	
Phase II						
Iron Sight Zero	AA33	Ball	18	2		4
Phase III						
Iron Sight Practice Record	AA33	Ball	40	2		4
Iron Sight Record	AA33	Ball	40	2		4
Unassisted Night Practice	AA33/ A063	Ball	20/10	1		2
Unassisted Night Record	AA33/ A063	Ball	20/10	1		2
CCO Qualification <sup>1</sup>						
CCO Zero	AA33	Ball	18	N/A		2
CCO Practice	AA33	Ball	40	N/A		2
CCO Record	AA33	Ball	40	N/A		2
TWS Qualification <sup>1</sup>						
TWS Zero (WFOV & NFOV)	AA33	Ball	36	N/A		2
TWS Night Field Fire I	AA33	Ball	36	N/A		2
TWS Practice	AA33	Ball	40	N/A		2
TWS Record	AA33	Ball	40	N/A		2
IR Qualification <sup>1</sup>						
IR Zero	AA33	Ball	18	N/A		2
IR Night Field Fire I	AA33	Ball	36	N/A		2
IR Practice	AA33	Ball	40	N/A		2
IR Record	AA33	Ball	40	N/A		2
Total Rounds for Qualification						
Phase I–III	AA33/ A063	Ball		236/20		472/40
CCO Qualification <sup>1</sup>	AA33	Ball		N/A		196
TWS Qualification <sup>1</sup>	AA33	Ball		N/A		304
IR Qualification <sup>1</sup>	AA33	Ball		N/A		268

Notes:

<sup>1</sup> 1. Only Soldiers assigned the CCO, TWS or IR are authorized to conduct the corresponding qualification.

*c. M1200 Shotgun Qualification.* One hundred percent of Ground Reconnaissance Expeditionary Team assigned Soldiers will meet the qualification standards in STP–95C1–SM every three months. (See table 17–6)

**Table 17–6**  
**M1200 Shotgun Qualification (STP–95C1–SM)**

EVENT	DODIC	TYPE	Rounds	GR/CA/CO	Freq
					Ground Recon Expeditionary Tm
Preliminary Marksmanship Training		TADSS	N/A	0	4
Instructional Fire	A011	Buckshot	3	0	4
Qualification Fire	A011	Buckshot	10	0	4
<b>Total Rounds for Qualification</b>					
	A011	Buckshot		0	52

#### **17–4. NG Counter Drug Ground Reconnaissance Expeditionary Team Collective Training Requirements**

This section contains strategies for collective training events for Ground Reconnaissance Expeditionary Teams within the NG Counter Drug Team.

*a. M9 Collective Training.* table 17–7 lists collective training resourcing for Soldiers assigned to Ground Reconnaissance Expeditionary Teams.

**Table 17–7**  
**M9 Collective Training**

EVENT	DODIC	TYPE	Rounds	Freq
Urban Operations	AB13	SESAMS	10	4
<b>Total Rounds for Collective Training</b>				
	AB13	SESAMS		40

*b. M16/M4 Collective Training.* table 17–8 lists collective training resourcing for Soldiers assigned to Ground Reconnaissance Expeditionary Teams.

**Table 17–8**  
**M16/M4 Collective Training**

EVENT	DODIC	TYPE	Rounds	Freq
Sqd/Plt/Co FTX/STX	A080	Blank	40	1
Urban Operations	AB09	SESAMS	10	4
<b>Total Rounds for Collective Training</b>				
	A080	Blank		40
	AB09	SESAMS		40

## **Appendix A**

### **References**

#### **Section I**

##### **Required Publications**

##### **AR 5-13**

Training Ammunition Management (Cited in paras 1-5, 16-4.)

#### **Section II**

##### **Related Publications**

A related publication is a source of additional information. The user does not have to read a related reference to understand this publication.

##### **AR 140-1**

Mission, Organization, and Training

##### **AR 220-1**

Unit Status Reporting

##### **ARTEP 44-635-11-DRILL**

Patriot Crew Drills for Electric Power Plant and Antenna Mast Group

##### **ARTEP 44-635-12-DRILL**

Patriot Crew Drills for Information Coordination Central with EPU, Communications Relay Group, and Tactical Command System

##### **ARTEP 44-635-13-DRILL**

Patriot Crew Drills for Engagement Control Station and Radar Set (INCL C-1 AND C-2)

##### **ARTEP 44-635-14 DRILL**

Patriot Crew Drills for the PAC-2/PAC-3 Launching Station and Missile Reload

##### **ARTEP 44-117-22-MTP**

Mission Training Plan for the Avenger Platoon

##### **ARTEP 7-8 MTP**

Battle Drills for the Infantry Rifle Platoon and Squad

##### **ARTEP 7-7J MTP**

Battle Drills for the Bradley Fighting Vehicle Platoon, Section, and Squad

##### **ARTEP 7-90 MTP**

Drills for Infantry Mortar Platoon, Section, and Squad

##### **ARTEP 31-807-30 MTP**

Mission Training Plan for the Special Force Operational Detachment A (SFODA)

##### **FM 19-10**

Military Police Law and Order Operation

##### **FM 23-10**

Sniper Training

##### **FM 23-23**

Antipersonnel Mine M18A1 and M18 (CLAYMORE)

##### **FM 3-22.9**

Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 CARBINE (INCL C-1 THRU C-4)



**FM 3-01.86**

Air Defense Artillery Patriot Brigade Gunnery Program

**FM 3-11.11**

Flame, Riot Control Agents, and Herbicide Operations

**FM 31-28**

Special Forces Advanced Urban

**FM 3-19.11**

Military Police–Special Reaction Teams

**FM 3-20.12**

Tank Gunnery

**FM 3-20.8**

Scout Gunnery

**FM 3-22.1**

Bradley Gunnery

**FM 3-22.27**

MK 19, 40MM Grenade Machine Gun, MOD 3

**FM 3-22.65**

Browning machine Gun, Caliber .50 HB, M2

**FM 3-22.67**

Machine Gun, 7.62MM, M60

**FM 3-22.68**

Crew Served Weapons

**FM 3-22.90**

Mortars

**FM 3-22.91**

Mortar Gunnery

**FM 3-23.25**

Shoulder–Launched Munitions

**FM 3-23.30**

Grenades and Pyrotechnics Signals

**FM 3-23.35**

Combat Training with Pistols, M9 AND M11 (INCLU C-1)

**FM 3-34.2**

Combined–Arms Breaching Operations

**FM 5-250**

Explosives and Demolitions

**FM 7-0**

Training the Force

**FM 3-04.140**

Helicopter Gunnery

**STP 19-95C1-SM**

MOS 95C, Corrections Specialist, Skill Level 1 Soldier's Manual

**STP 31-18-SM-TG**

Soldier's Manual and Trainer's Guide MOS 18 Special Forces Common Skills Level 3 and 4

**STP 31-18C3/4-SM-TG**

Soldier's Manual and Trainer's Guide MOS 18C Special Forces Engineer Sergeant Skill Levels 3 and 4

**TC 90-1**

Training for Urban Operations

**RTC 350-1**

Regimental Training Circular

**Section III****Prescribed Forms**

This section contains no entries.

**Section IV****Referenced Forms**

This section contains no entries.

**Appendix B  
TADSS****B-1. Training Aids, Devices, Simulators and Simulations (TADSS)**

Live fire qualification is resourced per the appropriate FM in most cases. Fiscal constraints have resulted in a reliance on TADSS to train Soldiers on some events. A holistic approach to training that includes live fire and TADSS are needed to fully prepare Soldiers. Commanders must integrate TADSS into the training strategies to train events that are not resourced. Anti-Armor training strategies are wholly reliant on TADSS for qualification.

**B-2. Training Aids**

a. LAW-M190 Sub-caliber Launcher. The M190 sub-caliber launcher is made by converting expended LAW launchers. The unit armorer requisitions the items required to convert a fired LAW launcher to the sub-caliber launcher through supply channels. The M190 can be used for all phases of LAW gunnery. The sub-caliber rocket simulates the noise, smoke, blast, and flight trajectory of the tactical rocket.

b. LAW/AT-4 Field Handling Trainer (FHT). Units will receive an initial issue of these devices through their local TASC. This device satisfies LAW/AT-4 gunners' requirements to conduct target acquisition and procedural gunnery tasks during instructional and unit training without actual live fire.

c. AT-4 Tracer Trainer (TT). The TT is a specially designed AT-4 launcher that accepts a special rifle barrel that fires a downloaded 9mm tracer bullet. This device simulates the AT-4 weapon in weight, balance, physical characteristics and gunner operation. The 9mm bullet replicates the flight trajectory of the tactical rocket. Expended tactical launchers cannot be converted to TTs. TTs are listed as a separate line item with replaceable parts.

**B-3. Simulators and Simulations**

a. *Multiple Integrated Laser Engagement System (MILES)*. This very effective, eye-safe laser system is used with several weapons systems and blank ammunition. It provides a means to train and sustain combat skills in a realistic force-on-force environment using actual equipment. It enhances realism in force-on-force tactical exercises and develops weapons proficiency, as well as many individual and collective combat skills. The system provides real-time feedback to both the individual Soldier and leaders.

b. *MILES XXI*. The devices will be used by all career management fields (CMF) that participate in FOF exercises. MILES XXI devices will simulate actual weapons characteristics and provide a means to objectively assess weapons' effects during FOF training. By providing these capabilities in a training environment, Soldiers will be able to make and correct mistakes which would result in casualties in actual combat. Devices covered by this ORD will support elements of every Mission Area as they participate in force-on-force training exercises at home station.

c. *Engagement Skills Trainer 2000 (EST-2000)*. The EST-2000 is a multipurpose virtual marksmanship training device. The technology is essentially the same as the Shoot/Don't Shoot Stress Training Device (SDSSTD) but with marksmanship training scenarios for all Infantry Squad weapons: M9, M16/M4, M203, M249, M240B, M21/24,

MK-19 GMG, M2 .50 Cal MG, and AT-4. The EST scenarios are the courses of fire in the FM. Training scenarios are provided to support several basic skills programs of instruction and tactical firing tasks.

d. *Weaponeer*. The Weaponeer is an effective marksmanship training device which closely approximates the live firing of an M16A1/A2 rifle. The system consists of a standard M16A1 rifle which has been modified and is non-restorable. Realistic sound is provided through a headset. Recoil is provided by a rod attached to the front of the weapon. The target assembly contains a zero target, 25 to 250 meter scaled targets and the capability to present various target arrays encountered on live-field and record-fire ranges. The Weaponeer can be used in two ways. First, it can be used to teach basic skills and diagnose shooting problems. Second, it can be used to practice and reinforce certain shooting exercises. The Weaponeer is not acceptable as a substitute for record qualification firing.

e. *Multipurpose Arcade Combat Simulator (MACS)*. The MACS is an inexpensive part-task trainer utilized with the M16A1/A2. MACS are designed to train and sustain basic rifle marksmanship skills and have been validated through extensive testing. The system consists of a Super Nintendo microprocessor or a modified Zenith computer, 13-inch color monitor, specially designed long-distance light pen, and mounts which attach to the M16 rifle. Some versions use a permanent mount on a demilitarized rifle. The system is activated by a program cartridge, which contains several training exercises. MACS can be acquired for less than \$2000.00 by contacting the Training Support Center, Ft Benning, GA. MACS provides additional practice for those units that do not have access to adequate range facilities or have other resource constraints.

f. *MACS II*. MACS II is an upgrade replacement for the old Nintendo MACS system. A MACS II is much more accurate than either of the older systems and does not require any wires to be attached to the rifle. MACS II can be acquired for less than \$3,500.00 by contacting the Training Support Center, Ft. Benning, GA. MACS II provides additional practice and diagnostics for those units that do not have access to adequate range facilities or have other resource constraints.

#### **B-4. Devices**

a. *The 5.56mm Short Range Training Ammunition (SRTA)*. The SRTA may be used in lieu of 5.56 ball or .22 caliber rim-fire adapter (RFA) for Urban Operations Shoot house training and the tasks outlined in the M16 rifle strategies conducted on a 15/25 meter range. The ammunition must be used with the M2 bolt assembly. SRTA should only be used for practice/record fire on scaled target courses, when full caliber cannot be used.

b. *Bolt Assembly, 5.56mm, M2*. The M2 bolt assembly is a training device used with SRTA. This special bolt, designed to be interchangeable between the M16A1 or M16A2 Rifles, is required to cycle the rifle when it is firing SRTA. Use of this bolt converts these rifles from gas-operated weapons to recoil-operated weapons. The M2 bolt is not recommended for use in the M4 Carbine. A modified bolt is under development.

c. *Target Box Exercise*. The target box is used during preliminary marksmanship instruction (PMI) to teach and permit a Soldier to practice placement of the aiming point. It requires a rifle, rifle rest, target paddle, plain piece of paper, pencil and coach/trainer.

d. *Riddle Sighting Device*. The device is used during PMI to train correct sight picture. It is attached to the weapon's front site post and then moved until the Soldier obtains the correct sight picture. A coach/trainer checks the sight picture using an M16 sighting device.

e. *M16 Sighting Device*. The M16 sighting device is a metal frame with a tinted glass reflector. When attached to the rear sight, the device permits the coach/trainer to observe at a right angle the firer's sight alignment and aiming point. It may be used with dry-fire PMI training or live fire.

f. *Night Firing, Target Mechanism, Small Arms M40*. This is a portable electromechanical control mechanism that comes with fifteen targets that are used in the night firing of small arms on non-Remote Target System (RETS) ranges. A counter/flasher chassis assembly records hits made by the firer and causes the muzzle flash simulator lights on each target to blink on command.

g. *Machine Gun Recoil Amplifier, .50 Caliber, M3*. The M2HB Machine Gun Recoil Amplifier boosts the power that is required to effectively cycle the weapon when using the M858 .50 caliber short range plastic practice tracer cartridges. This ammunition enables realistic training to be carried out at considerably shorter distances with greatly reduced danger areas. Standard M33 ball (service) ammunition cannot be used when the recoil amplifier is attached to the weapon. A discriminator MUST be installed in the feed tray of the gun when the recoil amplifier is in use. The discriminator restricts the entry of M33 service ammunition into the feed tray of the M2HB machine gun but permits the shorter plastic cartridges to feed.

## **Appendix C**

### **Non-Infantry Battalion Collective UO Training Resourcing tables**

This training strategy is presented as an EXAMPLE for Urban Operations training for Non- Infantry units only, this is not a mandatory training requirement. Strategy may apply to all proponents except Infantry, Armor, Engineers, and Military Police.

## C-1. Non-Infantry Urban Operations Training Strategy

The Non-Infantry Urban Operations Training Strategy is the only approved UO training strategy for Non-Infantry units. This training strategy identifies the training ammunition resources required to conduct (UO) training. This is an optional training event based on a commander's Mission Essential Task List (METL). The UO training strategy outlines training events a unit commander can choose to conduct. This is not an additive training event. The training strategy and resource requirements were developed from TC 90-1. The UO resourcing table in paragraph (9-5) contains specific DODICs and quantities by the event to support UO training. This resourcing comes from the collective training ammunition resourced for each weapon. UO training is not a requirement; however commanders are strongly encouraged to prepare their Soldiers for UO by executing this strategy. Not all of the collective training ammunition identified in the tables will be used during the conduct of UO training the commander can use the remaining ammunition to repeat events or conduct other collective training.

a. The UO training strategy outlines individual and collective weapons training requirements and qualification standards to prepare units for an urban environment. This strategy does not provide non-ammunition training tasks; these tasks are assumed to have been trained prior to reaching this stage.

b. The following are a selected list of references:

- (1) FM 3-22.9, *Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine*.
- (2) FM 3-22.68, *Crew-Served Machine Guns 5.56mm and 7.62mm*.
- (3) The 1<sup>st</sup> Armored Division Operation Iraqi Freedom Lessons Learned #77, M249/M240 CQM Familiarization.
- (4) TC 90-1, *Training for Urban Operations*.

## C-2. Close Quarters Marksmanship

a. Assuming the presence of a standard M16A2/M4 zero and qualification range and a machine gun qualification range (for M249s, and so forth), all levels of this training can be conducted at home station. A second iteration could involve the Engagement Skills Trainer 2000 (EST 2000) system, or some other form of simulator. Blanks or dry fire techniques can be used if no other facilities or resources are available.

b. The training presented here is taken directly from FM 3-22.9, *Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine*, FM 3-22.68, *Crew-Served Machine Guns 5.56mm and 7.62mm*, and the 1<sup>st</sup> Armored Division Operation Iraqi Freedom Lessons Learned #3 and #77. All are abbreviated here in structure, utilizing only select components of each source for this training. All of the prerequisite training listed in each FM for the events listed below should be completed before proceeding to a live fire event.

(1) FM 3-22.9, Rifle Marksmanship M16A1, M16A2/3, M16A4, and M4 Carbine (see table C-1). All personnel are recommended to conduct portions of Section II and Section IV of Chapter 7, Advanced Rifle Marksmanship, utilizing the ammunition and range requirements listed, to increase familiarity and confidence in use of their assigned weapons. Section II - Combat Fire Techniques (Ammunition requirements are listed below for reference):

- (a) 7-8 - Rapid Semiautomatic Fire.
- (b) 7-10 - Suppressive Fire.
- (c) 7-11 - Quick Fire.

**Table C-1**  
**Combat Fire Techniques for M16A1, M16A2/3, M16A4, and M4 Carbine**

Event	DODIC	Type	Rounds
Rapid Semi auto Fire	A059	5.56mm Ball	20
Suppressive Fire	A059	5.56mm Ball	30
Quick Fire	A059	5.56mm Ball	20

(2) Section IV - Short-Range Marksmanship Training (See table C-2) (Ammunition requirements are listed below for reference):

- (a) 7-25 - Phase I, Reflexive Fire Training.
- (b) 7-26 - Phase II, Target Discrimination Training.
- (c) 7-27 - Phase III, Short-Range Marksmanship Qualification.

**Table C-2**  
**Short Range Marksmanship Training**

Event	DODIC	Type	Rounds
Reflexive Fire	A080	5.56mm Blank	16
	A059	5.56mm Ball	16
Target Discrimination	A080	5.56mm Blank	16
	A059	5.56mm Ball	16
Record Fire	A059	5.56mm Ball	18

(3) FM 3-22.68, Crew-Served Machine Guns 5.56mm and 7.62mm (See table C-3). CSS personnel are recommended to conduct portions of Section IV of Chapter 4, Machine Gun Marksmanship Training, and Section VII of Chapter 5, Combat Techniques of Fire, utilizing the ammunition and range requirements listed, to increase familiarity and confidence in use of their assigned weapons. Chapter 5, Section VII - Advanced Gunnery, 5-25 Alternate Firing Positions. Ammunition requirements are listed below for reference:

**Table C-3**  
**Crew-Served Machine Guns 5.56mm and 7.62mm**

Task	DODIC	Type	Rounds
1	None	Dry Fire Walk-Through	0
2	A064/A131	5.56mm or 7.62mm Link Ball	14
3	A064/A131	5.56mm or 7.62mm Link Ball	28
4	A064/A131	5.56mm or 7.62mm Link Ball	42
5	A064	5.56mm	14
6	A064	5.56mm	28
7	A064	5.56mm	28
8	A064	5.56mm	42

### **C-3. 1st Armored Division Operation Iraqi Freedom Lessons Learned #77, M249/M240 CQM Familiarization**

The entire text is included here in its original Task, Conditions, and Standard format, taken directly from the lessons learned documents.

- a. M-249 CQM Familiarization (table C-4).
- b. Task: Conduct M-249 reflexive shooting training after all other qualification tasks have been completed.
- c. Conditions: Given a Kevlar helmet, LCE, RBA, knee pads, gloves, day and night aided vision devices, gun light, appropriate eye and hearing protection, 25-meter rifle range, weapon, 48 rounds of 5.56 link ammunition, and bowling pin or FBI target and pasters.
- d. Day and Night, Protective Mask.
- e. Note: Initial train-up and some sustainment training can be conducted with only a helmet, LCE, eye and hearing protection.
- f. Standard: Each Soldier will identify the proper target and engage the target at ranges from 4 to 25 meters from the stationary position, while turning, walking, and running. The normal training path is to score a GO on the familiarization table before qualifying. Leaders may modify this based on training level and experience of individual Soldiers. Note: All rounds must impact on the E-Type silhouette. Hits are defined as being in the lethal zone (bowling pin). Standard is 24/48.

**Table C-4**  
**M249/M240 MG Training**

Task		Range	DODIC	Type	Rounds
1	Straight	4m	A064/A131	5.56mm or 7.62mm Link Ball	6
2	Left Turn	4m	A064/A131	5.56mm or 7.62mm Link Ball	6
3	Right Turn	4m	A064/A131	5.56mm or 7.62mm Link Ball	6
4	Walking	7m-4m	A064/A131	5.56mm or 7.62mm Link Ball	6
5	Walking	15m-10m	A064/A131	5.56mm or 7.62mm Link Ball	6
6	Walk - Right	7m-4m	A064/A131	5.56mm or 7.62mm Link Ball	6
7	Walk - Left	7m-4m	A064/A131	5.56mm or 7.62mm Link Ball	6
8	Run - Shoot	20m-10m	A064/A131	5.56mm or 7.62mm Link Ball	6

#### **C-4. Urban Operations Training**

*a.* It is recommended that the training listed in paragraphs *c* and *d* below be conducted once annually. Crawl-level training (walk-through, dry fire, and so forth) can be done at home station. In all other cases, though, a facility capable of supporting blank, SESAMS, and/or live fire must be used.

*b.* The training presented here is taken directly from TC 90-1, *Training for Urban Operations*, but is abbreviated in structure. Only some of the training in TC 90-1 was selected for inclusion in this document. Non-Infantry personnel are recommended to conduct the training listed below, utilizing the ammunition and range requirements listed, to increase familiarity and confidence in use of their assigned weapons. All of the prerequisite training (such as individual movement techniques) listed in TC 90-1 for the events listed below should be completed before proceeding to a live fire event.

*c.* The TC 90-1, Chapter 2, Urban Assault Course ammunition requirements are listed below per individual weapon. (see table C-5).

**Table C-5**  
**Urban Assault Course**

Event	DODIC	Type	Rounds	AC	USAR/NG
Station 1	A080	5.56mm Blank	10	1	Post Mobilization
Individual and Team	A075/A111	5.56mm Blank Linked or 7.62mm Blank Linked	15	1	Post Mobilization
Trainer	G878	Grenade Fuze	NA	1	Post Mobilization
Station 2	A080	5.56mm Blank	16	1	Post Mobilization
Squad and Platoon	A075/A111	5.56mm Blank Linked or 7.62mm Blank Linked	24	1	Post Mobilization
Trainer	G878	Grenade Fuze	NA	1	Post Mobilization
Station 3	A059	5.56mm Ball	4	1	Post Mobilization
Trainer	B519	40MM TP	4	1	Post Mobilization

*d.* The TC 90-1, Chapter 3, Shoot House, ammunition requirements, are listed in table C-6 below per individual weapon and requires an actual shoot house to conduct.

**Table C-6**  
**Urban Operations Shoot House**

Event	DODIC	Type	Rounds	AC	USAR/NG
Event 1		Dry Fire	0	1	Post Mobilization
Shoot House - Crawl		Dry Fire	0	1	Post Mobilization
Event 2	A080	5.56mm Blank	20	1	Post Mobilization
Shoot House - Walk	A075	5.56mm Blank Linked	30	1	Post Mobilization
Event 3	A059	5.56mm Ball	20	1	Post Mobilization
Shoot House - Run	A064	5.56mm Link	30	1	Post Mobilization

*e.* Annual Roll-Up by DODIC for the UO Training for Live-Fire (see table C-7). The following table is the total ammunition requirement to conduct the UO collective live-fire exercise. Commanders may choose not to execute this or they can combine with other collective live-fire events and TADSS.

**Table C-7**  
**Urban Operations Annual Roll-up**

DODIC	TOTAL UO Roll-Up for Live-Fire	
	Type	Rounds
A080	5.56mm Blank	78
A075	5.56mm Link Blank	69
A059	5.56mm Ball/Tracer	144
A064	5.56mm Link Ball	162
G878	Grenade Fuzes/SM	N/A
B519	40mm TP	4
A111	7.62mm Link Blank	69
A131	7.62mm Link Ball	132

## Appendix D

### Installation, Base Operations, Munitions Support Requirements and Operational Loads

#### D-1. Description

*a.* This appendix establishes the operational ammunition resourcing requirements for Army Installation/Garrison operations. This appendix resources Installation/Garrison Support, Base Operations (BASOPS), or real-world missions conducted for the purposes of maintaining Installation/Garrison Security or in support of mobilizations. The tables in this chapter contain munitions requirements by operational task. Submit requests for supply to support these requirements through established Army Commands and Army Service Component Commands channels.

*b.* An objective of this chapter is to assist commanders in determining the quantities of munitions they need to have on hand in order to support Installation/Garrison, BASOPS, or mobilization requirements for a 90-day period. In effect, these are guidelines for establishing a 90-day stockage objective at the installation level.

#### D-2. Installation Support Requirements Annual Roll-up

table D-1 lists the ammunition authorized annually for specific installation activities.

**Table D-1**  
**Installation Support Requirements Annual Roll-up**

Specification	DODIC	Nomenclature	UI	Amount
	M023	Disposal Activities Chg Demo Blk Comp C-4 1-1/4 lb M112	EA	2500
	M039	Chg Demo Blk Cratering 40 lb	EA	2
	M130	Cap Blasting Electric M6	EA	7500
	M131	Cap Blasting Non-Electric M7	EA	7500
	M174	Cartridge Impulse	EA	50
	M421	Charge Demo Shaped M3 40 Lb	EA	2
	M670	Fuse Blasting Time M700	FT	22500
	M766	Igniter Fuse Blasting Time M60	EA	5000
	A011	Wildlife Protection and Rodent Control Cartridge 12 Gauge Shotgun 00 Buckshot	EA	100
	A091	Cartridge .22 Caliber Ball Long Rifle	EA	50
	M130	Environmental Hazard Control Cap Blasting Electric M6	EA	500
	M131	Cap Blasting Non-Electric M7	EA	1000
	M421	Charge Demo Shaped M3 40 Lb	EA	200
	M591	Dynamite Military	STX	2600
	M766	Igniter Fuse Blasting Time M60	EA	1000
	G930	Rescue Team HG HC AN-M8	EA	48
	G940	HG Green Smoke M18	EA	48
	G945	HG Yellow Smoke M18	EA	48
	G950	HG Red Smoke M18	EA	48
	L311	Signal Illum Red Parachute M126A1	EA	50
	L508	Emergency Signals Fuse Warning RR Red M72	EA	40
	G940	HG Green Smoke M18	EA	160
	G950	HG Red Smoke M18	EA	50
	G945	HG Yellow Smoke M18	EA	160
	G940	HG Green Smoke M18	EA	210
	G945	HG Yellow Smoke M18	EA	210
	G955	HG Violet Smoke M18	EA	210
	A080	Military Interment (Expressed in Amount Per Interment, Per Weapon System, Including Both Training and Operational Rounds) Cartridge 5.56mm Blank M200	EA	30
	A112	7.62mm Rifle Cartridge 7.62mm Blank M8	EA	30
	C440	Saluting (Expressed in Amount Per Installation) Cartridge 105mm Blank M395	EA	1050
	C025	Equipped With 105mm Howitzer Cartridge Arty 75mm Blank M337A1	EA	1050
	A010	Equipped With 3 Inch Field Gun, 75mm PK Howitzer Cartridge 10 Gauge Blank	EA	1050
	C025	Equipped With 10 Gauge Blank Cartridge Capabilities Cartridge Arty 75mm Blank M337A1	EA	570
	C440	USA Sergeants Major Academy Equipped with 75mm PK Howitzer Cartridge 105mm Blank M395	EA	300
	C025	ROTC/NDCC Installation Equipped with 105mm Howitzer Cartridge Arty 75mm Blank M337A1	EA	300
	M131	Avalanche Control (Expressed in Annual Amount Per Location) Cap Blasting Non-Electric M7	EA	200
	M670	Rocky Mountain Area Fuse Blasting Time M700	FT	2000



**Table D-1**  
**Installation Support Requirements Annual Roll-up—Continued**

NG Unit Assigned Avalanche Firing Mission in CONUS	C445	Cartridge 105mm HE M1 Without Fuse	EA	10
HQ USARPAC Firing in Alaska	C445	Cartridge 105mm HE M1 Without Fuse	EA	400
12 Gauge Shotgun	Weapons Test A011	(Expressed in Amount Per Maintenance Activity) Cartridge 12 Gauge Shotgun 00 Buckshot	EA	20
Cal .22 Weapon	A091	Cartridge .22 Caliber Ball LR	EA	20
7.62mm Machine Gun	A131	Cartridge 7.62 4 Ball/1 Tracer	EA	10
9mm Pistol	A363	Cartridge 9mm Ball M882	EA	45
Cal .38 Revolver	A400	Cartridge .38 Caliber Special Ball	EA	12
Cal .45 Pistol, Submachine Gun	A475	Cartridge .45 Caliber Ball	EA	10
M85 Machine Gun	A520	Cartridge .50 Caliber Linked Ball/Tracer	EA	10
M2 Machine Gun	A557	Cartridge .50 Caliber Ball/Tracer	EA	10
81mm Mortar M1, M252, M29	C869	Cartridge 81mm HE M889 With PD Fuse	EA	5
105mm Howitzer	C445	Cartridge 105mm HE M1 Without Fuse	EA	5
105mm Gun M68	C511	Cartridge 105mm TP-T	EA	5
2.75 Inch Rocket Weapon System	HA12	Rocket 2.75 Inch HE w/ PD MK66-4	EA	48
105mm	Weapons Calibration, C445	Ammunition Expressed in Annual Amounts Per Weapon Cartridge 105mm HE M1 Without Fuse	EA	10
155mm Howitzers M1, M1A1, M46	D544	Projectile 155mm HE M107	EA	10
155mm	The Following Items are Authorized Per Specified Projectile Authorized Herein D540	Prop Charge 155mm M3A1	EA	1
105mm, 155mm, 8 Inch with PDF	N335	Fuse PD M557	EA	1
155mm, 8 Inch	N523	Primer Percussion M82	EA	1

### D-3. Official Army Parachute Teams/Clubs Annual Roll-up

table D-2 lists the ammunition authorized annually for these specific installation activities.

**Table D-2**  
**Parachutes Teams/Clubs Annual Roll-up**

Specification	DODIC	Nomenclature	UI	Amount
Seventh Army Parachute Team (Ground Control, Emergency Signals)	G950	USA Parachute Team HG Red Smoke M18	EA	20000
	G940	HG Green Smoke M18	EA	1600
	G950	HG Red Smoke M18	EA	2500
	USMA Parachute Club (Drop Zone Operations Control)	HG HC AN-M8	EA	128
	G940	HG Green Smoke M18	EA	60
	G945	HG Yellow Smoke M18	EA	288
	G950	HG Red Smoke M18	EA	2214
	G955	HG Violet Smoke M18	EA	60
	USASOC Parachute Demonstration Team	HG Red Smoke M18	EA	2208
	G950	HG Red Smoke M18	EA	2208

### D-4. Airport, Airfield and Air Traffic Requirements Annual Roll-up

table D-3 lists the ammunition authorized annually for these specific installation activities.

**Table D-3**  
**Airport, Airfield and Air Traffic Requirements Annual Roll-Up**

Specification	DODIC	Nomenclature	UI	Amount
		Emergency Signals		
	G930	HG HC AN-M8	EA	4
	G940	HG Green Smoke M18	EA	1
	G945	HG Yellow Smoke M18	EA	1
	G950	HG Red Smoke M18	EA	4
	K511	Smoke Pot	EA	2

## D-5. EOD Operational Requirements

*a.* table D-4 lists the operational load per EOD Team.

**Table D-4**  
**EOD Team Operational Load Roll-Up**

Specification	DODIC	Nomenclature	UI	Amount
		Individual Weapon Systems		
Rifle 5.56mm M4	A059	Ctg 5.56mm Ball M855	EA	2890
	A063	Ctg 5.56 mm Tracer M856	EA	680
Pistol 9mm Automatic	A363	Ctg 9mm Ball M882	EA	30
Launcher Gren 40mm M203	B506	Ctg 40mm Red Smoke M713	EA	24
	B508	Ctg 40mm Green Smoke M715	EA	24
	B509	Ctg 40mm Yellow Smoke M716	EA	24
	B535	Ctg 40mm White Star Para M583	EA	24
	B536	Ctg 40mm White Star Cluster M585	EA	24
	B546	Ctg 40mm HEDP M433	EA	96
Equipped With LIN M09009	A064	Ctg 5.56mm 4 Ball/1 Tracer	EA	1200
	AA02	Ctg 5.56mm Armor Piercing M995	EA	1200
Equipped With LIN M39263	A064	Ctg 5.56mm 4 Ball/1 Tracer	EA	1600
Rifle Sniper .50 Cal: XM107	AZ48	Team Tools Ctg Cal .50 Sniper XM1022	EA	420
Standoff Disrupter IED (PAN)	AA62	Ctg 12 Gauge MK274 MOD 0	EA	70
	AA63	Ctg 12 Gauge MK275 MOD 0	EA	70
	AA64	Ctg 12 Gauge MK276 MOD 0	EA	70
	AA66	Ctg 12 Gauge MK278 MOD 0	EA	70
	DWEC	Ctg 12 Gauge MK277 MOD 0	EA	70
	DWED	Ctg 12 Gauge MK279 MOD 0	EA	70
	DWEE	Ctg 12 Gauge MK280 MOD 0	EA	70
	DWEI	Ctg 12 Gauge MK34 MOD 0	EA	70
	MN90	Blast Cap, Non-Electric 1000 Ft M13	Roll	35
	MN08	Igniter, Time Fuze and Shock Tube M81	EA	560
Standoff Disrupter UXO (RE-70)	M174	Ctg .50 Cal Impulse (Electric)	EA	24
.50 Cal Dearmer: MK2 MOD 1	M174	Ctg .50 Cal Impulse (Electric)	EA	84
Remote Wrench Set: MK1-3	M174	Ctg .50 Cal Impulse (Electric)	EA	24
Small Caliber Dearmer: SCD MK38 MOD 0	A363	Ctg 9mm Ball M882	EA	70
	A091	Ctg .22 Cal Ball Long Rifle	EA	70
	MN90	Blast Cap, Non-Electric 1000 Ft M13	Roll	7

**Table D-4**  
**EOD Team Operational Load Roll-Up—Continued**

RONS MK3 MOD 0 (Robot)	MN08	Igniter, Time Fuze and Shock Tube M81	EA	140
	A011	Ctg 12 Gauge Shotgun 00 Buckshot	EA	25
	AA54	Ctg 12 Gauge Breaching Procedures	EA	25
Response Team Demo (Tool Kit)	MN90	Blast Cap 1000 Ft	Roll	70
	MN69	Blast Cap 30 Ft	Roll	140
	MN88	Blast Cap 500 Ft M12	Roll	70
	MN06	Blast Cap Delay M14	EA	210
	MN07	Blast Cap Non-Elec Delay MDI M15	EA	1470
	ML45	Holder Blast Cap and Shock Tube	EA	350
	MN08	Igniter, Blasting Fuse M81	EA	1050
	MN68	Booster Demolition Charge	EA	210
	M130	Cap Blasting Electric M6	EA	420
	M131	Cap Blasting Non-Electric M7	EA	700
	M023	Charge Demo Block 1 ¼ C4	EA	420
	MM50	Charge Demo Clipped M221	EA	504
	M456	Det Cord Type-1	EA	14000
	M670	Fuse Blasting Time M700	FT	35000
	M980	Charge Demo Roll M186	FT	700
Additional Company Demo	ML04	Cutter, Powder Act MK 23 MOD 0	EA	35
	ML05	Cutter, Powder Act MK 24 MOD 0	EA	35
	G900	HG Incendiary AN-M14	EA	350
	M060	Charge Demo Roll PETN 25 Ft	EA	140
	M032	Charge Demo Block TNT 1 Lb	EA	140
	M241	Destructor Explosive M10 1.7 Gm	EA	30
	ML09	Charge Demo FLSC 20 GPF	EA	2
	ML10	Charge Demo FLSC 30 GPF	EA	2
	ML11	Charge Demo FLSC 40 GPF	EA	2
	ML12	Charge Demo FLSC 60 GPF	EA	2
	ML13	Charge Demo FLSC 75 GPF	EA	2
	ML14	Charge Demo FLSC 125 GPF	EA	2
	ML15	Charge Demo FLSC 225 GPF	EA	2
	ML16	Charge Demo FLSC 300 GPF	EA	2
	ML17	Charge Demo FLSC 400 GPF	EA	2
	ML18	Charge Demo FLSC 500 GPF	EA	2
	ML19	Charge Demo FLSC 600 GPF	EA	2
	L495	Common Unit Bulk Items Flare Surface Trip	EA	3
	G881	HG Fragmentation M67	EA	17
	G940	HG Green Smoke M18	EA	2
	G930	HG HC AN-M8	EA	4
	G950	HG Red Smoke M18	EA	2
	G955	HG Violet Smoke M18	EA	2
	G945	HG Yellow Smoke M18	EA	2
	C995	Launcher & Ctg 84mm M136 (AT4)	EA	11

**Table D-4**  
**EOD Team Operational Load Roll-Up—Continued**

	L314	Sig Illum Green Star Cluster M125	EA	3
	L305	Sig Illum Green Star Para M195	EA	1
	L311	Sig Illum Red Para M126A1	EA	1
	L306	Sig Illum Red Star Cluster M158	EA	1
	L307	Sig Illum White Star Cluster M159	EA	1
	L312	Sig Illum White Star Para M127	EA	1

*b.* table D-5 lists the operational load per Technical Escort Unit (TEU) Team.

**Table D-5**  
**TEU Team Operational Load Roll-Up**

Specification	DODIC	Nomenclature	UI	Amount
Rifle 5.56mm M4		Individual Weapon Systems		
	A059	Ctg 5.56mm Ball M855	EA	2040
	A063	Ctg 5.56 mm Tracer M856	EA	480
Pistol 9mm Automatic	A363	Ctg 9mm Ball M882	EA	360
		Procedures		
	M174	Ctg Impulse, Electric	EA	100
	M023	Charge Demo Block 1 ¼ C4	EA	80
	M060	Charge Demo Roll PETN 25 Ft	EA	1
	M130	Cap Blasting Electric M6	EA	45
	MN41	Cap Blasting Non-Electric	EA	45
	M456	Det Cord Type-1	EA	500
	MN06	Blast Cap Delay M14	EA	4100
	MN08	Igniter, Blasting Fuse M81	EA	245
	MN69	Blast Cap 30 Ft	Roll	1400
	MN88	Blast Cap 500 Ft M12	Roll	1400
	MN90	Blast Cap 1000 Ft	Roll	1400
	MN68	Booster Demolition Charge	EA	45
	MN41	Cap Blasting M18	EA	45

## **D-6. Rock Quarry Operations**

Rock quarry operational requirements are determined using the appropriate formulas outlined in FM 3-34.465.

## **Glossary**

### **Section I Abbreviations**

#### **AAR**

After Action Review

#### **AC**

Active Component

#### **ACOG**

Advanced Combat Optical Gunsight

#### **ACOM**

Army Command

#### **ACR**

Armored Cavalry Regiment

#### **ACT**

Apache crew trainer

#### **AD**

Air Defense

#### **ADA**

Air Defense Artillery

#### **ADFT**

Artillery Direct Fire Trainer

#### **A-FIST**

Abrams Full-Crew Interactive Simulator Trainer

#### **AG**

Assistant Gunner

#### **AGES**

Air-to-Ground Engagement System

#### **AGL**

Above Ground Level

#### **AGTS**

Advanced Gunnery Training System

#### **AIMSS**

Advanced Infantry Marksmanship Strategies and Standards

#### **AIT**

Advanced Individual Training

#### **AMD**

Air Missile Defense

#### **AMG**

Antenna Mast Group

#### **AP**

Anti-Personnel Mine

**AP**

Armor-Piercing

**APIT**

Armor-Piercing Incendiary-Tracer

**APOBS**

Anti-personnel Obstacle Breaching System

**AR**

Armor

**AR**

Army Regulation

**AR**

Automatic Rifle

**ARM**

Advanced Rifle Marksmanship

**ARNG**

Army National Guard

**ARTEP**

Army Training and Evaluation Program

**ARTY**

Artillery

**ASP**

Ammunition Storage Point

**AT**

Antitank

**AT**

Artillery table

**AT**

Annual Training

**ATK**

Attack

**ATM**

Air-Crew Training Manual

**ATSC**

Army Training Support Center

**ATWESS**

Antitank Weapon Effects Signature Simulator

**AVN**

Aviation

**AWSS**

Area Weapons Scoring System

**BASOPS**

Base Operations

**BATS**

Bradley Advanced Training System

**BCT**

Brigade Combat Team

**BCU**

battery coolant unit

**BFIST**

Bradley Full-crew Interactive Simulator System

**BFSV**

Bradley Fire Support Vehicle

**BFV**

Bradley Fighting Vehicle

**BGST**

Bradley Gunnery Skills Test

**BLUEFOR**

Blue Forces

**BIS**

Back-up iron sight

**BN**

Battalion

**BNCOC**

Basic Non-Commissioned Officers Course

**BRT**

Brigade Reconnaissance Troop

**BST**

Basic Skills Trainer

**btry**

Battery

**BVR**

Beyond visual range

**C4**

Composition 4

**CAB**

Combined Arms Battalion

**cal**

Caliber

**CALFEX**

Combined Arms Live Fire Exercise

**CALS**

Committee for Ammunition Logistic Support

**CAS**

Close Air Support

**CAT**

Category

**CATS**

Combined Arms Training Strategy

**CCMCK**

Close Combat Mission Capability Kit

**CCO**

Close-combat Optic

**CCTT**

Close Combat Technical Trainer

**CFT**

Captive Flight Trainer

**CFV**

Cavalry Fighting Vehicle

**CID**

Criminal Investigation Division

**CMF**

Career Management Field

**CMS**

Combat Mission Simulator

**CMTC**

Combat Maneuver Training Center

**cont**

Continue

**Co**

Company

**COAX**

Coaxial

**COFT**

Conduct-of-fire trainer

**CONOPS**

Contingency Operations

**CONUS**

Continental United States

**CPHD**

Copperhead



**CPQC**

Combat Pistol Qualification Course

**CPT**

Cockpit Procedures Trainer

**CPX**

Command Post Exercise

**CQB**

Close Quarters Battle

**CQC**

Close Quarters Combat

**CRD**

Chemical Recon Detachment

**CRG**

Communications Relay Group

**CRT**

Combat Readiness Training

**CS**

0-chlorobenzyl denemalononitrite

**cs**

Combat Support

**CSS**

Combat Service Support

**CSMET**

Crew Station Mission Equipment Trainer

**CSS**

Combat Service Support

**CTC**

Combat Training Center

**CTG**

Cartridge

**CWEPT**

Cockpit, Weapons and Emergency Procedures Trainer

**C4**

Composition four

**DA**

Department of the Army

**DCS**

Deputy Chief of Staff

**DEPLOYEX**

Deployment Exercise

**DIFCUE**

Direct Indirect Fire Cue

**DODIC**

Department of Defense Identification Code

**DOTD**

Director of Training Development

**ECS**

Engagement Control System

**EOD**

Explosive Ordnance Disposal

**EPP**

Electric Power Plant

**EPU**

Electric Power Unit

**ESSLR**

Eye-Safe System Laser Rangefinder

**EST**

Engagement Skills Trainer

**EXEVAL**

External Evaluation

**FA**

Field Artillery

**FASCAM**

Family of Scatterable Mines

**FCX**

Fire Coordination Exercise

**FDC**

Fire Direction Center

**FFE**

Fire for Effect

**FHT**

Field Handler Trainer

**FIST**

Fire Support Team

**FLIR**

Forward Looking Infrared

**FLSC**

Flexible Linear Shaped Charges

**FM**

Field Manual

**FRAG**

Fragmentation

**FREQ**

Frequency

**FRTR**

Full Range Training Round

**FSP**

Fire Support Package

**FTX**

Field Training Exercise

**GL**

Grenade Launcher

**GMG**

Grenade Machine Gun

**GST**

Gunnery Skills Test

**GT**

Gunnery table

**HB**

Heavy Barrel

**HE**

High Explosive

**HEPD**

High Explosive Point Detonation

**HG**

Hand Grenade

**HGQC**

Hand Grenade Qualification Course

**HGST**

Helicopter Gunnery Skill Test

**HHC**

Headquarters and Headquarters Company

**HIMARS**

High Mobility Artillery Rocket System

**HMMWV**

High Mobility Multipurpose Wheeled Vehicle

**HQDA**

Headquarters Department of the Army

**HTM**

Hellfire Training Missile

**HTWS**

Heavy Thermal Weapon Sight

**in accordance with**

In Accordance With

**ICC**

Information and Coordination Center

**ICM**

Improved Conventional Munitions

**ICOFT**

Institutional Conduct of Fire Trainer

**IDP**

Initial Deployment Package

**IED**

Improvised Explosive Device

**IFF**

Identification Friend/Foe

**Illum**

Illumination

**IN**

Infantry

**IR**

Infrared

**IRTT**

Infrared Towed Target

**ISU**

Integrated Sight Unit

**ITAS**

Improved Target Acquisition System

**ITGS**

Improved Tank Gunfire Simulator

**JMRC**

Joint Multi-national Readiness Center

**JRTC**

Joint readiness Training Center

**JRX**

Joint Readiness Exercise

**LAT**

Live Aircraft Trainer

**LCT**

Longbow Crew Trainer

**LFAST**

Live Fire Accuracy Screening Test

**LFX**

Live Fire Exercise

**LID**

Light Infantry Division

**LMG**

Light Machine Gun

**LMTS**

Laser Marksmanship Training System

**LOS**

Line Of Sight

**LS**

Launcher Station

**LSV**

Logistics Support Vehicle

**LTID**

Laser Target Interface Device

**MANPADS**

Man Portable Air Defense System

**MANSCEN**

Maneuver Support Center

**MCOFT**

Mobile Conduct of Fire Trainer

**MDI**

Modernized Demolition Initiator

**METL**

Mission-Essential Task List

**MG**

Machine Gun

**MGO**

Machine Gun Optic

**MGS**

Mobile Gun System

**MGSS**

Main Gun Signature Simulator

**MICLIC**

Mine Clearing Line Charge

**MIDP**

Missile Distribution Plan

**MILES**

Multiple Integrated Laser Engagement System

**MLRS**

Multiple Launch Rocket System

**MOPMS**

Modular Pack Mine System

**mort**

mortar

**MOS**

Military Occupational Specialty

**MOUT**

Military Operations in Urban Terrain

**MP**

Military Police

**MPAT**

Multi-Purpose Anti-Tank

**MRE**

Mission Rehearsal Exercise

**MRT**

Missile Round Trainer

**MTOE**

Modification table of Organization and Equipment

**MTP**

Mission Training Plan

**MTT**

Mobile Training Team

**MUTA**

Multiple Unit Assembly

**NBC**

Nuclear, Biological, and Chemical

**NFOV**

Narrow Field of View

**NG**

National Guard

**NGB**

National Guard Bureau

**NLCS**

Non-Lethal Capability Set

**NTC**

National Training Center

**NVD**

Night Vision Device

**OCONUS**

Outside the Continental United States

**ODA**

Operational Detachment Alpha

**ODB**

Operational Detachment Bravo

**OPALERT**

Operational Alert

**OPFOR**

Opposing Force

**ORD**

Operational Requirements Document

**OSUT**

One Station Unit Training

**pam**

pamphlet

**PCOFT**

Patriot Conduct of Fire Trainer

**PDD**

Presidential Decision Directive

**PEO STRI**

Program Executive Office for Army Simulation, Training and Instrumentation

**PGS**

Precision Gunnery System

**PGT**

Preliminary Gunnery Training

**PGTS**

Precision Gunner Training System

**PLT**

Platoon

**PMT**

Preliminary Marksmanship Training

**POM**

Program Objective Memorandum

**QTB**

Quarterly Training Brief

**RA**

Reticle Aim

**RAMS**

Remote Activation Munitions System

**RC**

Reserve Component

**Rds**

rounds

**RCAT**

Radio Controlled Aerial Target

**RCFWT**

Radio Controlled Fixed Wing Target

**RCMAT**

Radio Controlled Miniature Aerial Target

**RETS**

Remote Target System

**RFA**

Rim Fire Adapter

**RGR**

ranger

**RP**

Red Phosphorous

**RSC**

Regional Support Command

**RPG**

Rocket Propelled Grenade

**RPVTS**

Remotely Piloted Vehicle Target System

**RRF**

Ranger Ready Force

**RS**

Radar Set

**RSTA**

Reconnaissance Surveillance and Target Acquisition

**RV**

Reconnaissance Vehicle

**SAW**

Squad Automatic Weapon

**SBCT**

Stryker Brigade Combat Team

**SDM**

Squad Designated Marksman



**SDSSTD**

Shoot/Don't Shoot Stress Training Device

**SDZ**

Surface Danger Zone

**SEC**

Section

**SESAMS**

Special Effects Small Arms Marking System

**SF**

Special Forces

**SFAUC**

Special Forces Advanced Urban Combat

**SFG**

Special Forces Group

**SGT**

Sergeant

**SIG**

Signal

**SLAM**

Selectable Lightweight Attack Munitions

**SLAP**

Saboted Light Armor Penetrator

**SLAP-T**

Saboted Light Armor Penetrator with Tracer

**SM**

Soldier's Manual

**SME**

Subject Matter Expert

**Smk**

Smoke

**SOAR**

Special Operations Aviation Regiment

**SOF**

Special Operations Forces

**SOSCOM**

Special Operations Support Command

**SOT-A**

Special Operations Team Alpha

**SQD**

Squad

**SQDN**

Squadron

**SRT**

Special Reaction Team

**SRTR**

Short Range Training Round

**STAM**

State Ammunition Manager

**STD**

Standard

**STP**

Soldier Training Publication

**STRAC**

Standards in Training Commission

**STRICOM**

Simulation, Training, and Instrumentation Command

**STX**

Situational Training Exercise Total Army

**T4AC**

Total Army Ammunition Authorization/Allocation Committee

**TADSS**

Training Aids, Devices, Simulators, and Simulations

**TAMIS**

Training Ammunition Management Information System

**TC**

Training Circular

**TC**

Tank Commander

**TCA**

Tactical Control Assistant

**TCGST**

Tank Crew Gunnery Skill Test

**TCO**

Tactical Control Officer

**TD**

Tactical Director

**TDA**

table of distribution and Allowances

**TDA**

Tactical Director Assistant

**TEER**

Training Event Execution Review

**Tel**

Telfare

**TESS**

Tactical Engagement Simulation System

**TFSO**

Training Fire Support Officer

**THT**

Tracking Head Trainer

**TLGOSC**

Training and Leader Development General Officer Steering Committee

**TM**

Team

**TNT**

Trinitrotoluene

**TOT**

Time On Target

**TOW**

Tube launched, Optically tracked, Wire guided Missile

**TP**

Training Projectile

**TPCSDS-T**

Target Practice Cone Stabilized Discarded Sabot-Tracer

**TPDS-T**

Target Practice Discarding Sabot-Tracer

**TPIO-LIVE**

TRADOC Program Integration Office- LIVE

**TPT**

Troop Proficiency Trainer

**TPT**

Target Practice Tracer

**TRADOC**

U.S. Army Training and Doctrine Command

**TRP**

Troop

**TSC**

Training Support Center

**TSD**

Training Support Division

**TSV**

Thru-sight Video

**TT**

Tactical Trainer

**TTT**

table Top Trainer

**TWGSS**

Tank Weapons Gunnery Simulation System

**TWS**

Thermal Weapon Sight

**UCOFT**

Unit Conduct of Fire Trainer

**UO**

Urban Operations

**USAR**

U.S. Army Reserve

**USARC**

U.S. Army Reserve Command

**USASOC**

U.S. Army Special Operations Command

**UV**

Ultra Violet

**UXO**

Unexploded Ordnance

**VCSA**

Vice Chief of Staff of The Army

**WFOV**

Wide Field of View

**WP**

White Phosphorous

**Section II****Terms**

No entries in this section.

**Section III****Special Abbreviations and Terms**

No entries in this section.

**UNCLASSIFIED**

**PIN 061980-000**

# USAPD

ELECTRONIC PUBLISHING SYSTEM  
OneCol FORMATTER WIN32 Version 247

PIN: 061980-000

DATE: 07-24-08

TIME: 12:13:08

PAGES SET: 414

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DATA FILE: C:\Wincomp\p350-38.fil

DOCUMENT: DA PAM 350-38

SECURITY: UNCLASSIFIED

DOC STATUS: REVISION